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CLINICAL LECTURE.

TREPHINING FOR EPILEPSY.— FRACTURE OF THE BONES OF THE ANKLE. — SURGICAL TREATMENT OF PSOAS ABSCESS.

BY JOHN H. PACKARD, M. D.,

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Gentlemen: The man who presents himself to our attention to-day has no especial family history bearing on his case; there is no history of nervous trouble in his family except that one uncle was an epileptic. Our patient was a healthy boy until he reached the age of fifteen, when, on returning from school one day, he was hit in the head with a brick. He became unconscious and was carried home in that condition. He retained apparent health for a year, until when sixteen; then while swimming he was suddenly seized with a queer feeling and became again unconscious. He then went six years without the recurrence of any similar symptoms. Then he had a number of repeated spells of unconsciousness, in one of which he fell and broke his arm. In 1858 he went to China, where he contracted gonorrhoea and in addition a chancre. He is a moderate drinker; his only other history is that of rheumatism. Now his attacks come on irregularly but with great frequency. He thinks that the heat of summer makes them appear at more frequent intervals; so that now he is in constant dread lest one may appear at any time. He is nervous and debilitated. When the attack comes on there is loss of memory first, then a convulsion appears in which there is total loss of consciousness; before coming to, he walks for squares without consciousness appearing; finally coming to his senses he

finds himself far from the spot where the attack commenced. On going home, he finds that his muscles are excessively sore and weak as if they had been subjected to a severe pounding. On careful examination there has been found no disease in any of his organs; no albumin in his urine.

In a number of features this case differs from the history of a case of epilepsy as we ordinarily hear it. In most cases these convulsions and spells of unconsciousness come on without apparent cause. It is often a common experience to find children presented with the history of protracted spells of violent outbreaks of temper and terrific screaming spells; in these occasionally it has been noticed that they have fallen and examination discloses the fact that in the fall the tongue has been bitten. Again, ordinarily after an epileptic seizure, it is customary for the patient to fall into a heavy sleep, dull and stupid in its character, from which he awakes unrefreshed. It is not uncommon for an epileptic to run as the attack is coming on, although in many cases this may be limited to taking a few steps. I remember a patient that always ran for a stairway when his attacks came on; it is a remarkable fact that in these runnings he never pitched himself down-stairs to destruction. In some cases a preliminary cry is heard; it frequently occurs in a case of epilepsy that at first the cry is heard, but that as time goes on, that it gradually disappears, and finally ceases to occur altogether.

This man, from the nature of his malady, is incapacitated for work; he could not keep a position as clerk anywhere, for he is constantly exposed to these attacks and it would be most awkward indeed for himself and his employer to have them occurring in business hours, for they would seriously interfere with the quantity and quality of his work.

On careful consideration of the features

of the case I have determined to trephine him over the seat of his former injury, which is in the parietal region above the zygoma. At the point which he indicates as the place of injury from the brick, is a slight scar in the scalp and a depression in the skull. It is probable that his present malady comes from the blow, although the spells of unconsciousness did not appear in very close connection as regards time; still the connection between the cause and results is sufficiently reasonable for our purpose.

I have no idea as to the condition which we shall find within the skull. The internal table may be turned in, causing compression of brain substance. There may be simple adhesion between the inner surface of the bone and the dura and pia mater. There may be thickening of the brain substance at this point. We will be prepared for anything. Now as to the amount of risk run by the patient. The objection has been raised that in the necessary use of ether the epileptiform condition is liable to be produced; this need not influence us in any way; this condition in the epileptic under the circumstances is in no wise different from that induced in a normal subject. You will see that this epileptiform condition which usually appears in patients only after prolonged etherization, has appeared in this man almost immediately on his taking the first inhalations. It need not alarm us; we will treat it as in any other case, simply withdrawing the ether until the disappearance of the unpleasant symptoms. As he is now recovered from this condition we will make our first incision. In cutting the flap of skin covering the affected point, I do it in such a way as to allow the best drainage subsequently, as the patient's head reclines upon the pillow in bed. Hence the convexity of the curve is downwards. After I have taken out the plate of bone, I will use this platinum probe, which is bent at the end in such a way as to allow its insertion under the skull around the edges of the hole, to determine the condition of the inner surface of the cranial vault. If any spicula of bone is pressing down, this probe will detect it. Curious as it may seem, it is a fact that, although the operation of trephining has been known and practiced for a long time, it was not until the present century that the idea of cutting a semicircular incision in the scalp was published. Before this time it was the custom to remove the flap of skin entirely in performing the operation. Hay,

in 1803, published the first suggestion of this idea; it may have been practiced before; if so, we have no record of it. Hay proposed a cruciform or semicircular flap.

The danger which we run from hemorrhage is as follows. In this region are found the terminal branches from the external carotid artery above the zygoma in the parietal region. These will not cause us much trouble; hemostats will control them if they chance to bleed too freely. On the inner table we have the branches of the middle meningeal artery; you have frequently noticed in your examinations of the inner table of the skull the grooves which branch here and there across its surface; in these grooves run the branches of this middle meningeal artery, on the outer surface of the dura mater. Sometimes these little arteries bleed furiously when cut. To stop this hemorrhage we will use if necessary a small pair of forceps, placing one blade within the skull and one without, compressing in this way the lumen of the artery. In applying the trephine we must not be too liberal in its use; the skull is rather thin at this point, hence we could easily go in too far. On removing this plate of bone I find that the probe passes freely around under the skull, showing that apparently there is no projection of bone and no adhesion as far as I can determine. The probe makes an uninterrupted passage around the entire opening. I have bitten away the edges of the opening to allow more extended opportunity for examination, all to no purpose. The dura mater bulges, as it should, into the opening; but it may require a puncture subsequently to relieve the pressure; the brain symptoms will reveal this necessity if it exists. At the temporo-parietal fissure the dura should be adherent. The temporal fossa is easily reached from this point; and if care and thought are not expended, it may be that fragments of normal bone will be removed.

I feel satisfied that the simple depression of the skull is sufficient to explain the occurrence of all the symptoms shown in this case. I am sorry for the sake of a brilliant demonstration, that I could not have removed a spicule of bone and have been able to say that it was the disturbing factor, but I have found enough for the present, and I see no reason for further interference, beyond biting away a little more of the edge of the hole. For a dressing we shall use iodoform gauze, placing it in contact with the dura mater, and not filling it in too close

for twenty-four hours, covering this with an antiseptic dressing. If no symptoms arise I may leave this dressing for forty-eight hours. There is a little troublesome hemorrhage from the edge of the wound; I will place a hair-lip pin around the vessel and throw a ligature around it. We also put in a catgut drain to assist in the free escape of liquids.

What good have we done? Often it is hard to see what the improvement of the symptoms is due to; here a depression has been removed. This depression may cause congestion of the membranes of the brain, repeated at frequent intervals and slowly growing more severe and prolonged.

Fracture of Ankle.

The next man has trouble at the other end of the body. He presents a history which is not uncommon. Eight days ago he was admitted to the hospital suffering from the effects of a fall from the second story of a building. He alighted on his heels; the skin over one ankle was broken and there was free bleeding. Several bones—it is difficult to say exactly which ones—were fractured. The same condition existed in the other foot, except that that was no solution of the continuity of the skin. The question immediately arises on seeing a case of this sort, of what should be done. It is not best, I believe, to attempt to make accurate apposition of the fractured bones; this would require dissection of the parts and would do more harm than good. It is better to make moderate extension and reduce all apparent deformity in the ankles. There will be undoubtedly some subsequent stiffening. In this case we have simply applied lead-water and laudanum dressing, to subdue the inflammation; after the swelling has subsided sufficiently, readjustment of the displacement will be made as carefully as possible. I had a case some time ago which reverts to my mind. A gentleman leaped from the window during the excitement of a hotel fire, landing on his feet. There was such severe contusion that I etherized the man, but found no fracture. Eventually he recovered but with inability to bend the foot in and out. He was an amateur organist of considerable ability; unfortunately he found that this was the exact movements required for the pedals. It was a great disappointment but he will gradually recover the movement in the course of time.

Psoas Abscess.

The next case is one of psoas abscess; the man who lies before you has one such abscess; but a sudden rise of temperature and the appearance of symptoms of severe sickness was followed by the discovery of a swelling on the other side, which on opening under ether revealed the existence of pus. I am going to present the case to my colleagues and if they assent I will follow the route of these abscesses back to the carious vertebrae which they represent and if possible will remove all the carious material. I have seen these cases, fifty at least in the past twenty-eight years, present themselves with this man's history and all go on to the same termination. At other points of the body we remove carious bone; we take it out of the fibula or femur; if it can be taken from the vertebrae it would be most excellent. The operation is not so radical and difficult or serious to life as you would imagine at first thought. The route has been made for us; all that we would have to do would be to follow it.

COMMUNICATIONS.

ERGOT IN TYPHOID FEVER.¹

BY T. B. HILL, M. D.,
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Ergot stimulates the unstriated or involuntary muscular fibre to contraction wherever found. Such fibre is found in the alimentary canal from the middle of the cesophagus to the internal sphincter ani, in the posterior segment of the trachea and the bronchial tubes to their finest ramifications, in the heart, in the middle coat of the arteries, veins and lymphatic vessels and in other situations.

In the treatment of typhoid fever, prior to the advent of the so-called specific methods, the proper thing to do, seemed to be to mitigate the more prominent and unpleasant symptoms, and to guard the avenues of danger. Moreover, however meritorious in themselves, the newer ideas have not usurped and cannot usurp the place of the old. We are not cognizant of the disease apart from its symptoms—headache, fever, diarrhoea,

¹ Read before the Tri-County Medical Society at Washington, Pa., October 15, 1890.

depression, abdominal pains, tympanites and intestinal hemorrhage. Then we have the specific lesions—enlargement of the mesenteric glands, with deposit in the glands of Peyer, which usually advance to ulceration. One of the earliest and most persistent symptoms is feebleness. Not only is the gait staggering and uncertain, but there is also relaxation and want of tone in the muscles of the entire economy. A marked example is the softness of the pulse and the feebleness of the first sound of the heart. Relaxation of the smaller blood-vessels is common, as shown by the numerous mucous congestions. Epistaxis is a common, and diarrhoea an almost universal early symptom.

From a careful study of the pharmacology of ergot, I was led some years ago to believe that in it we have a drug capable of meeting more of the indications presented in typhoid fever than can be met by any other single drug or combination of drugs at our command. At the same time it is extremely simple and entirely harmless.

The symptom which earliest and most loudly calls for treatment is headache. I am aware that there has been some difference of opinion as to the pathological condition on which the headache depends, but the preponderance of evidence is in favor of congestion. The value of ergot in congestion of the central nervous system is well established, hence its indication here.

The condition of the circulation is another circumstance which, though not so self-asserting as the headache, is of far greater importance and ought to receive much earlier attention than is generally accorded to it.

Prof. Pepper in a clinical lecture says: "Among the indications to be considered in the prognosis, I have mentioned the heart and the pulse. This is exceedingly important. I think that the study of the sounds of the heart—of the strength of the muscular or first sound of the heart, the strength of the impulse, the way in which the artery fills at the wrist, how it resists pressure, the quality of the beat, the frequency of it and its regularity—is of the first importance in the prognosis of typhoid fever; and as a guide to treatment, especially in regard to the important question as to the administration of stimulants. In a case in which the pulse-rate is from 120 to 140 per minute, very compressible so that it collapses under the slightest pressure, with an

exceedingly weak first sound, so that it assumes an almost valvular character, stimulants may be given freely." I have given this quotation to emphasize the importance of giving earlier attention to the condition of the circulation. If it is of the *first importance*, as Prof. Pepper says, why should we withhold the hand until we are confronted by the critical condition he describes? Simply, I presume, because no one is willing at an earlier period to resort to stimulants (by which is meant some of the forms of alcohol), because they are not capable of accomplishing the desired good, and because they may accomplish undesired evil. They cannot accomplish the desired good because their force is directed to the nervous system, which at this early period is not at fault. They may accomplish undesired evil, because the stage of depression which follows overstimulation may overtake the patient at a time when his vital powers are not able to withstand it. In ergot, on the other hand, we have an agent which, by directing its energies to the weakened muscular structures, causes the heart to contract with more firmness and regularity, while to the arteries is restored that resiliency which enables them to carry forward the circulating fluid with healthful vigor; and a condition of self-confidence is imparted to the entire circulation.

Diarrhoea is a symptom which is present in a large part of all cases of typhoid fever, and usually at one stage or another calls for some kind of treatment. The use of ergot in diarrhoea and dysentery is not a new thing. The indication is as well marked here as in any other form of diarrhoea.

Intestinal hemorrhage is a symptom which I believe is always dreaded. Almost everybody prescribes ergot when hemorrhage has actually taken place. I hold that it would be better practice to fortify, not only against intestinal hemorrhage, but also against all forms of hemorrhage by an early resort to the use of ergot.

With the causation of typhoid fever the present discussion has nothing to do. But whether it be due to a specific microbe or not, the special lesion is hyperemia of the intestinal mucous membrane with foci of inflammation in the glands of Peyer. Here the indication is to remove the hyperemia and to starve out the inflammation. If there is a drug in the materia medica available for this purpose, it is ergot.

Tympanites is often a serious trouble, and

sometimes goes so far as to constitute an important element in the prognosis. By its upward pressure it causes marked interference with respiration, and adds greatly to any pulmonary complication. In the same way it hinders the free action of the heart. It is caused by fermentation of the ingesta, and is made possible only by the relaxed state of the muscular layer of the intestinal wall. Stimulate these muscles to maintain the caliber of the intestine at its normal dimensions, and tympanites can no more occur in the typhoid patient than it can in an individual enjoying perfect health. This looks like a strong statement; but it is not inadvertently made.

Perforation may be very appropriately spoken of as the "king of terrors" in typhoid fever. I do not say that it can be entirely prevented. I know there are cases, apparently the mildest, not seeming to call for any medication whatever, which, without any premonition of danger, suddenly develop the intense abdominal pain, the chill, the collapse, that only too unmistakably tell the sad story of a perforation. But I do say that when we permit the inflammation in the intestinal glands to run its course unimpeded to final ulceration, and when we permit the intestine to be distended to its fullest extent—the ulcers stretched to many times their original size, the thickness of the wall at their bottoms diminished to the most extreme tenuity, while the volume of pent-up gases, continually reinforced by the putrefactive processes, momentarily threatens to burst through the fragile structure and sound the knell of the unfortunate victim—then, I say, we have done what we could to render the untoward event not only possible but probable. If, however, we have, as already intimated, made use of means to remove the hyperemia and to starve out the inflammation—if we have limited the size of the ulcers, while we have preserved the normal dimensions of the gut and the tonicity of its walls, compelling the generated gases to move on instead of accumulating in such proportions as to be an ever-present menace to the life of the patient, we will have reduced the danger of perforation to the minimum. Again the indication points to ergot.

Now, having shown that ergot is indicated for headache, for the circulation, for diarrhoea, for the intestinal lesions, for tympanitis, for hemorrhage, and as a safeguard against the almost certainly fatal perforation, it remains to ask: Is ergot capable of fill-

ing these indications? My experience is yet so limited—and that is my only source of information—that I say it with timidity, but I feel able to answer: It is. The apparent results have been so uniformly and almost universally gratifying, that I am glad to believe this is not a mere coincidence. My cases may not have been the worst; but I have not lacked bad cases. In one instance the thermometer marked 106° for six consecutive days. Not only has the ergot had a salutary effect on the headache, but it has seemed to ward off delirium and other nervous manifestations which are apt to appear later in the attack. In the case already referred to, in which the temperature was 106° for six days, there were absolutely no nervous symptoms, and no other bad symptoms but the temperature.

In order to anticipate adverse criticism, I may say that I am not in sympathy with the antipyretic treatment, as a prominent factor in the management of typhoid fever.

Under the ergot treatment I have never seen more than the mildest delirium. I have seen very little somnolence, and no coma-vigil. I do not remember having prescribed anything else for diarrhoea, but have frequently prescribed for the opposite condition. I have never seen a case of intestinal hemorrhage. I have not seen tympanites beyond the slightest degree of fullness. I have seen only one case in which, as I now think, it was necessary to resort to alcoholic stimulation to sustain the flagging energies of the heart. This was the case of a woman in whom the menses came on in the second week of the disease and lasted one week; during which the ergot was suspended, and after which it seemed to have lost its usefulness. In this case there was decided failure of the heart which demanded the use of alcohol. I have seen no case of perforation. It goes without saying, I have seen no fatal case.

It would seem superfluous to enter into any detail of the manner of using ergot, so simple is it, yet this brief resumé might appear incomplete without some reference to that part of the subject. I have used only the fluid extract, in doses ranging from twenty to thirty minims every four, six or eight hours, as the case might require. Since beginning the use of ergot, all of my cases—about thirty—have been treated in this way from the commencement until convalescence was established, except the one case mentioned.

There is of course nothing specific in this treatment; nor is it intended to supplant specific medication, in which I believe, and which I practice in combination with ergot. All that is claimed for it, is that it is the simplest, safest, most rational and most efficient symptomatic treatment conceivable. As such I respectfully submit it to the consideration of the members of this society, with the hope that some, at least, may think well enough of it to give it a trial.

AN ANOMALOUS CASE OF MEASLES.

BY J. C. WILSON, M. D.

The following case illustrates two points of importance in regard to the acute infectious diseases:

1. Variation from the ordinary type;
2. The difficulty of diagnosis in atypical cases.

Case.—*Atypical measles; sudden onset; absence of coryza; erythematous sore throat; scarlatiniform eruption.*

G. L. J., sixteen years old, a school boy, had suffered from rōtheln some years ago. He had never had measles or scarlet fever, and was peculiarly liable to attacks of sore throat. He had mild enteric fever in September, 1890; made a good recovery, and was in his usual health.

November 27, upon rising, he felt chilly. The chilliness and shivering continued throughout the day. Towards evening his throat became sore. There was no sneezing, no coryza, and no cough.

November 28. The boy was feverish and indisposed, and had what he describes as a severe attack of indigestion, but without vomiting. He had no appetite, a good deal of pain on swallowing, and pains in back and joints. His evening temperature was 102° F.

November 29. He had a brilliant erythematous inflammation of the soft palate, uvula, half arches and tonsils. His tongue was thickly coated with yellowish white fur, and his bowels were constipated. His urine was non-albuminous. He complained of throbbing headache and backache; the pains in the joints had disappeared. His face was slightly flushed but free from eruption; his eyes were suffused, but not intolerant of light. There was still no sneezing; no cough; no râles. Upon examination, the

neck, thorax and sides of the abdomen were seen to be covered with a diffuse erythematous exanthem, resembling that of scarlet fever. The back and extremities were free from rash. The pulse was 112; the temperature 100° F. The evening temperature was 102.4° F. The boy was now given hydrag. chlorid. mitis, gr. v; pulv. morph. comp. (Tully's powder) gr. ii, every two hours.

November 30. The throat was less painful, but still deeply red; there was no eruption over the mucous membrane covering the hard palate. The diffuse scarlatiniform eruption had extended over the face, trunk, upper extremities and lower extremities as far as the knees. Upon the legs and arms it was most conspicuous upon the extensor surfaces, but it also covered the flexor surfaces. When viewed at a short distance it preserved its uniform appearance. Upon closer examination it seemed to be punctiform, and the hair follicles were seen to be especially swollen and congested. The texture of the patient's skin was rather coarse. There was also on this day some irritative cough; but upon auscultation no râles were discovered. The morning temperature was 102.4° F.; the evening temperature was 103.4° F. The use of calomel was followed by two large movements of the bowels.

The patient was now given

R Chloral. hydrat., gr. iii
Syr. lactucarii (Aubergier's) ℥ xv
Aque ℥ xlv

every two hours.

December 1. The throat was much better, and the cough no longer troublesome. Upon the face, chest and extensor surface of the extremities, the rash preserved its former appearance; on the flexor surface of the fore-arms, the diffuse rash had disappeared, leaving the dull, red, occasionally discreet, flat, papular eruption of measles, with characteristic curvilinear and crescentic arrangement. The exanthem of measles showed itself on this day upon the legs below the knee. The morning and evening temperature was 101.4° F.

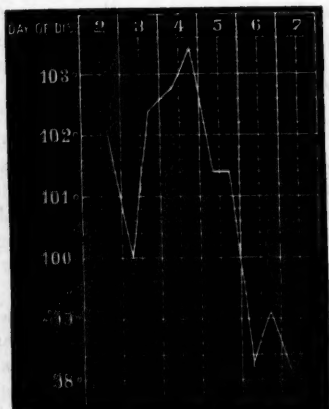
December 2. The morning temperature was normal; the throat was well; the exanthem was everywhere rapidly fading.

December 6. Convalescence was fully established; and there was a fine, scaly desquamation of face and neck; the temperature was normal, the urine not albuminous.

December 12. A brother of the patient,

eleven years old, who had been sent to the house of a relative, was brought to me on account of a troublesome irritative cough and sneezing, which had lasted two days. The following day he developed the eruption of measles.

This case, trivial as it appears when thus set forth, is not without practical interest. During the first three days a correct diagnosis was practically impossible. It was only upon the fourth day, when the fading erythema brought into relief the exanthem of



measles on the flexor surfaces of the forearm, and when the same eruption appeared upon the legs below the knees, that a doubt arose. The subsequent history of the case renders the diagnosis of measles alone tenable. The abrupt onset, with shivering and erythematous sore throat; the site of the appearances of the rash and the mode of its distribution; the absence of coryza; the insignificant catarrhal symptoms; and the temperature range, taken altogether, constitute in this case a wide variation from measles in its ordinary form.

The practical bearing of such a departure from type in any of the exanthematous diseases especially occurring in private practice requires no comment.

WOMEN PHARMACISTS.—It is said that there are now four women students of pharmacy in Philadelphia, and already, before they are near their graduation, three positions are waiting for them. Rather different this from the mob of poor sewers ever besieging the gates of that kind of employment—gates at which only one may be admitted for ten left outside.

WHEN IS TOTAL HYSTERECTOMY INDICATED? A PLEA FOR CONSERVATISM.¹

BY F. SHIMONEK, M. D.,

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In looking over the literature of hysterectomy for carcinoma of the cervix, my mind became imbued with the idea that the very wide differences in the views of authors regarding the propriety of total or partial extirpation, depended upon certain positive pathological elements and required extra vigilance in order to arrive at a correct opinion in regard to this important subject. I therefore desire to read this short paper regarding some points as means of differentiating the malignant neoplastic proliferations affecting the cervix uteri, as bearing on the selection of the proper operation. The kind of histological elements found in the new growth, to my mind, should influence the selection of the proper surgical procedure.

Since I have arrived at this conclusion, I saw in the *Medical Record*, September 6, 1890, an opinion expressed by Dr. John Williams, that "in cases of cancer of the cervix and of the portio vaginalis the propriety of operation depends upon the pathological variety of the neoplasm, etc." Therefore, I claim that no man has the right to perform total hysterectomy without having satisfied himself beyond all doubt that he is dealing with a neoplasm whose great tendency is early to infiltrate the body of the uterus. Of course, this has reference to the early stage, for in advanced cancerous degeneration, whether it be cancrroid or carcinoma, only one thing is proper, if any, and that is total extirpation. There are chiefly the two varieties—squamous-celled carcinoma or epithelioma, and the spheroidal-celled carcinoma, or the glandular or true cancer, which frequently affects the cervix. The epithelioma is the most frequent, and ordinarily it is primarily a superficial lesion, which, as the growth advances, gradually involves, as a rule, the surrounding tissue and only towards the end in some cases, infiltrates the body of the uterus, though only very exceptionally,

¹ Read before the Milwaukee Clinical Society, October, 1890.

as the great tendency is to destroy more and more of the infiltrated tissue rather than the establishment of numerous and remote foci of infection.

It is an undoubted fact that the epithelioma is not so malignant and is better amenable to the knife than the glandular cancer. Now, I think that the contradictory opinions, regarding the selection of the most proper procedure, completely ignore this undoubted and important factor in the diagnosis early in the invasion of the neoplasm. Such has been the success of some of the operators who prefer the partial operation, notably Baker and Byrne, that they report the average length of life, I think, to be about eight years. Byrne reports the cases of two women, who, after the operation, conceived and not only carried the children to full term, but gave birth to them without any special difficulty. If the teachings of some celebrated men had been followed, those women would have been consigned to barrenness. We must not forget, that, "In all gynecological operations the ultimate aim must be the preservation of the sexual activity." Therefore, it is the duty of every one who does work of this kind to investigate the exact pathological nature of the infiltration early, and not simply to make a diagnosis of cancer, and there let it rest.

There is no doubt but that the partial operation is comparatively simple, whereas complete hysterectomy is liable to be a formidable procedure, and the difference in the fatality of the operations is greatly in favor of the partial one. The glandular carcinoma commences deeper in the tissue and has a greater disposition to infiltrate the corpus uteri early; the greater malignancy of this variety is too well known to require an extensive argument in its support, and its tendency to recur is consequently also very much greater. Therefore, I contend that, it is of prime importance to make a most thorough histological research as early as possible in the invasion of the new formation, and for that purpose it is not generally sufficient to secure, merely, some scrapings or excise small pieces, but one must remove large wedge-shaped pieces or the whole intra-vaginal portion, if necessary, in order to make a comprehensive investigation; because one cannot judge of the condition of the whole by examining a small fragment thereof.

My argument is, then, if careful micro-

scopic examination shows a squamous-celled growth confined to the cervix uteri, one should perform supra-vaginal amputation; but if there be present a spheroidal-celled arrangement—be the neoplasm of ever so small dimensions—the probability is that there are widely scattered foci throughout the uterine parenchyma; and then total extirpation is most certainly the proper method. My own experience in this matter is very limited, but from a careful perusal of this subject I determined to make it the subject of these few remarks.

It may be appropriate in this connection to present the report of a case of malignant uterine neoplasm, with microscopic illustrations, which in a measure bears on the necessity for careful and thorough investigation for diagnostic and prognostic purposes. The case very positively proves that it is not sufficient to examine only a few scrapings. The specimens which I shall take the pleasure to exhibit to you, were made from a uterus which was wholly extirpated for an extensive malignant degeneration of the cervix uteri, supposed to be confined to that locality; but the microscope has since shown cells in their embryonic state, the so-called indifferent tissue or the pre-cancerous state, extensively distributed throughout the whole organ; and I have no doubt but that there were cells in the lymphatics and lymphatic glands in the pelvis. The only symptom of which the patient complained, at the time of presenting herself, was hemorrhage during coitus, which led me to examine the patient, and to discover the real state of affairs.

The first slide, which I show, was taken from a squamous-celled cancer of the cervix, and it very beautifully shows the typical cells and cell-nests. The next slide, which shows a specimen from this case here reported, was made from the cervix uteri in the immediate vicinity of the internal os, and it positively demonstrates the pathological difference between this and the preceding one. This section shows the mature spheroidal-celled carcinoma. You will notice that the cells are small, as compared with the squamous cells, and round, containing a nucleus and granular matter, also quite a development of inter-cellular fibrous tissue. This alveolar arrangement inclosing masses of spheroidal cells is characteristic of true cancer and the consistency depends upon the amount of the fibrous framework. The next section, which was made also from

the cervix, but nearer the external os, shows a different construction, and it would lead a man astray if he were to prepare only one slide. It is more like small, round-celled sarcoma, and in fact it is so much like it, that from one section it would be impossible to call it anything else; but it is the precancerous or embryonic tissue, or, as Maier's researches seem to show, the transformation of a sarcoma into cancer. Klebs denominates these (somewhat rare) mixtures, *carcino-sarcomata*.

The next slide was prepared from a polypus-like growth, which was situated near the internal os in the cavum uteri, which, you will perceive, shows the same sarcomatous appearance. The last sections were taken from remote parts of the body of the uterus and mucous membrane, and, in addition to the muscular tissue, show on quite close inspection similar small-round cells, which I mistook, at my first examination, for a transverse section of some muscular fibers, but since they are scattered irregularly among bundles of uterine muscular fibers, and bear a very close resemblance to the primitive cells, I am forced to conclude that they are all neoplastic cells.

Judging from the maturity of the glandular cells and inter-cellular fibrous tissue found in the deep part of the cervix, from the great rarity of cervical sarcoma, from the wide but sparse diffusion of the embryonic elements, I conclude that this was a case of true cancer with extensive infiltration.

The operation was quite difficult on account of the great size of the cervix. The patient succumbed to shock in about twelve hours. She nearly perished on the table, but rallied again, then failed and died.

What I have said has been with the design of suggesting and urging further and more accurate microscopic work and of pointing out the distinctive features of these epithelial new formations and their relations to the malignancy and infiltrating tendencies, as bearing on the selection of the proper surgical measures.

—Iodine, free from chlorine, is obtained (*Pharm. Centralh.*) by placing commercial iodine in a beaker glass and covering with a concentrated solution of potassium iodide. Place over the vessel a plate of glass, and apply heat until the iodine is melted. After cooling, collect the iodine crystals on a filter, and wash with distilled water.

CASE OF PERITONITIS.¹

BY R. J. TRIPPE, M. D.,

CHATTANOOGA, TENN.

On November 4, 1889, Ed. Stokes, 32 years old, a strong heavy-set negro, came to my office about 8 A. M., suffering excruciating pain in the abdomen, having received a blow with a crow-bar across this part of his body. Perspiration stood in large beads all over him. His radial pulse was imperceptible. He was not able to tell me anything about how he had been hurt. I administered a hypodermic of morphine, half a grain, and of atropine one-seventy-fifth of a grain, and gave him stimulants freely. In about an hour he felt very much better, and was placed in a hack and sent to his room, a distance of about eight blocks. I saw him later in the day, when he informed me he felt well enough to get up; but when an attempt was made, he discovered he was too weak. His appetite was good, and he was not thirsty. I told him to remain in bed until I saw him.

The next day, at 9 A. M., I saw him again. He now said he was feeling first-rate, and had taken food regularly and relished it. His tongue was heavily coated with brown, and was thick, broad and flabby. His breath was very offensive; he had no pain in the bowels, had passed urine without pain; and had no tympanites or tenderness, even on very deep pressure. I ordered calomel and soda aa gr. x, to be followed with sulphate of magnesia in a few hours.

On November 6, the third day, at about 3 P. M., without any warning, stercoraceous vomiting set in; but I did not see the man until 9 o'clock. His temperature was then 96°, his pulse 130, and he was wet all over with cold perspiration. I filled his stomach and bowels with hot water, with a view to overcoming the obstruction if possible. The water injected into the bowels came away as clear as it went in, but that in the stomach was accompanied by fecal matter. At 12 o'clock, as my patient got no better, I determined to wait no longer, and at 2 P. M. I opened the belly, and to my utter surprise found the entire cavity full of the most offensive pus I ever saw. (I may mention that even then there was not the slightest pain or tenderness of the bowels). The intes-

¹ Read before the Tri-State Medical Association, October 16, 1890.

tines were all adherent, and perforated in several places.

I realized at once that the case was a hopeless one, but proceeded with the operation as though I expected a good result. The perforations were closed with catgut; the adhesions were broken up and the guts separated; and the cavity was washed out with warm sublimate (1 to 20,000) until it returned perfectly clear. A drainage-tube was put in, and the wound was closed and dressed in the usual way. The patient was then put to bed, and packed with hot bottles. Reaction was prompt, and the temperature in three hours was normal. The man suffered no pain on the night after the operation, and had no nausea or vomiting.

On November 7, the fourth day, I saw him at 9 A. M. He then said he had had a good night, was hungry, and felt so very well that he declared he was going to get well. His bowels had begun to move, and the discharge had the appearance of bloody water mixed with pus. His diet consisted of milk and whiskey at regular intervals. His temperature was normal, his pulse 90.

On November 8, the fifth day, at 9 A. M., he was resting well, and said he had had a good night. He was still hungry. His temperature was normal, his pulse 78, his bowels still active. At 6 P. M. he was resting well, with a temperature of 99°, and a pulse of 90.

On November 9, the sixth day, at 10 A. M., his temperature was 98½°, his pulse 80. He said he thought he would be up in a few days. His bowels were still acting, and the movements of better character. I ordered the same diet to be continued.

About an hour later I was passing, and on inquiry I learned that my patient had suddenly grown worse. His temperature was 95°, his pulse 120, and at about 11 o'clock he died.

VALUE OF THE KOCH REAGENT FOR TUBERCULOSIS.

BY SAMUEL G. DIXON, M. D.,

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In considering at present the therapeutic value of the Koch remedy for human tuberculosis, we must weigh its power for good against its power for evil.

In lupus affections the reagent certainly produces an active inflammation, which

causes death of the recognizable tuberculous tissue. During treatment of lupus, a nodular infiltration takes place. The oedema in many cases is exaggerated. As the fever subsides, prostration is often experienced, the nodules gradually become covered with a crust, under which can be detected a healthy looking granulation. When these crusts fall off, young, red cicatrices are to be seen. The cases soon present the appearance of a perfect cure. This condition, however, does not always remain. In after weeks the characteristic inflammation of lupus again appears, and the process goes on as before.

Query. Does the reagent destroy all tuberculous tissue or does it only destroy that which we recognize? Time must answer.

Owing to the suppuration set up by the action of the Koch remedy in the vascular tissues, immediately surrounding the tubercles, the remedy is positively contra-indicated in tubercular meningitis.

With all internal tuberculous affections there is more or less danger of disseminating the bacilli. If the remedy attacked the bacillus as it does recognizable tuberculous tissue there would not be that danger.

In surgical tuberculosis, where there is not a marked predisposition of the tissues, we have much reason to look for success. Such cases more closely resemble the experimental animal cases than those of other characters. In these we should have all the advantages of the remedy and fewer of the disadvantages than in most others. Here the reagent may produce a degree of active tubercular inflammation sufficient to cause the death of the tubercular tissue, yet not affect tissues which are not predisposed to tuberculosis.

Time may show that the Koch remedy does not injuriously affect any tissue other than that which we can recognize as tuberculous. However, at present, no one can say that the new manifestations of tubercular lesions only arise in tissues previously tuberculous. The dissemination of the bacilli by being taken up into the circulation may produce the tuberculous process in parts that would under no other circumstances have taken on the tubercular process.

I must call attention to the fact that the remedy causes an acute inflammation in all live tuberculous tissues. All the vascular tissue surrounding tubercles, when under the influence of the remedy, is loaded with small round cells. The wandering cells are

even found working themselves into the giant cells. Hyperemia is produced. Each tubercle becomes the centre of an inflammation in the lung. Therefore in proportion to the lesion, the alveoli in the periphery of the tubercle are rendered incapable of performing their duties. In very extensive dissemination of tuberculosis, the enormous decrease in the functionable lung parenchyma may prove disastrous to life. This would, therefore, lead us to believe that the remedy is contra-indicated in widely disseminated invasions on lung tissue.

In laryngeal tuberculosis, we must remember, should the area of disease be very extensive, that this same infiltration of small round cells and hyperemia with oedema may also endanger life.

Experience has taught us that there is lurking danger that cannot be foreseen. This arises from the fact that tissues may be tuberculous to a degree susceptible to the action of the Koch remedy, when not otherwise recognizable, or again it is, as I have already said, made tuberculous by the process set up by the remedy. This is to be explained, possibly, by dissemination of the live bacilli. Just here I venture to say I do not approve the method of performing massage with tuberculous joints after treatment with the reagent.

If there is any known substance that will stimulate white blood corpuscles to break up foreign matter in the blood of the living animal, it should be administered during the Koch treatment. Iodide of potassium may assist indirectly in disposing of the bacilli during and after treatment.

There is one question that time alone will answer, to wit: Is the tissue immediately adjacent to the tuberculous tissue necrosed by the inflammatory process set up by the Koch remedy sufficiently tuberculous to slowly develop into recognizable tuberculosis, or is it rendered more susceptible to the action of the bacillus?

In referring to the menstruum sold by Dr. Libbertz as the Koch remedy or liquid, it is, I am inclined to believe, a menstruum made up of glycerine, gelatine and a metabolic product of the tubercle bacillus. This latter represents about one thousandth part of the mixture. Probably the menstruum contains a gold salt.

If the liquid contains that produced by the tubercle bacillus, we cannot be surprised at its special action on tuberculous tissue alone, yet it would not be very surprising if

it should react on leprosy. The bacillus of leprosy has characteristics in many respects corresponding to the tubercle bacillus.

If the action of the tubercle bacillus on the animal tissue is wrought by a process of digestion, we might seek to produce its digestive ferment by growing it on an artificial medium, inoculating and introducing it into the animal economy, already the prey of the tubercle bacillus. In this tissue the bacillus would be found secreting virus enough to inflame and break up the tissue to a degree suited for its absorption and existence. The artificially added product or digestive ferment would break up the chemical relationship of the constituents of the tissues to a degree beyond that suited for the consumption by the bacillus. The inflammation produced would possibly be so acute and severe as to kill all recognizable tuberculous tissue.

When in Berlin, Prof. Dr. Koch personally expressed to me his confidence in the remedy to successfully combat lupus and laryngeal tuberculosis.

I am inclined to the belief that the remedy should be very cautiously administered to man and that laboratory work should be energetically carried on.

FOREIGN CORRESPONDENCE.

BERLIN LETTER.

The Berlin Aquarium.—*A Chicago Doctor's Adventure.*—*Luxation of Crico-thyroid Joint.*—"Ether-Fritze."—*Pennyroyal as a Poison.*—*Antisepsis for Chiropodists.*—*Death from Bromide of Ethyl.*

Visiting the Berlin Aquarium the other day, I was fortunate enough to witness the representation of an interesting biological scene before a distinguished invited company, among whom were the Minister of Public Worship (Cultus Minister) and several University Professors. Dr. Hermes showed the reviving of African salamander-fish after an eight months' sleep. The fish were encapsuled in pieces of clay weighing about twenty pounds. These were partly placed in water, partly broken, the encapsuled fish freed from the surrounding mucus and also placed in water. Almost directly the fish showed signs of life, and after the expiration of a few minutes swam

freely to and fro. In case of the encapsuled fish the reviving process occupied a longer time. The trotopterus, after having lived as an amphibious animal, showed up invariably as a lively fish. The Berlin Aquarium—especially since the government has erected a station at Rovigno, Italy—contains the most interesting collection of submarine life in existence, and is one of the great points of attraction to visitors.

Speaking of visitors to Berlin, I cannot refrain from telling you about an exceedingly interesting adventure happening to a Chicago physician during the Congress. The Illinois man passed over the Linden late at night reflecting over the glory in store for his native city. Suddenly a suspicious-looking individual hustled by, closely touching the doctor. The latter, with the ingenuity of the Western man, felt for his watch, and missing it unhesitatingly began the pursuit of the robber. The suspicious individual fled through the Brandenburg Gate into the Thiergarten, the American doctor in close pursuit, loudly crying "put up that watch!" Near the Victory Column the robber was caught by the doctor, and compelled to deliver the watch, after which he was released. The Chicago man returned to his hotel, proud of himself and of his native city and country. But, lo! on the table he beheld his watch, which he had forgotten when leaving the hotel. Next morning all the papers published the story of a robbery in the Thiergarten: a French doctor, they said, had been pursued by a burly, powerful robber, attacked and robbed of his valuable watch.

Professor Braun, of the Koenigsberg University, published the first case of habitual luxation of the crico-thyroid articulation ever described, and—what adds to the interest of the matter—observed on his own person. By a singular coincidence the Professor had the opportunity to observe two other cases of the same character. On himself, the luxation appears on deep inspiration and during gaping. It is not simultaneous on both sides, but occurs either on the left or the right side. At times the luxation occurs daily, again months may pass without it. A sensation of oppression and great anxiety is invariably connected with the phenomenon. Reduction can be obtained in a very simple manner by mere manual pressure or the act of swallowing.

A few days ago I renewed a very strange acquaintance made many years ago. Pass-

ing Stralauer Strasse in the forenoon, I saw an oddly-dressed man of about thirty-five standing before the window of an art gallery and making incessant and profound bows before the pictures of the Imperial Majesties. Approaching the queer patriot, I noted at once a penetrating odor of ether. And seeing the man pouring some of the contents of a bottle into his handkerchief with the experience of a skilled anæsthetiser, I understood the situation. The man in front of me was "Ether-Fritze," the well-known victim of etheromania. The deplorable individual belonged to a rich and highly-cultured Berlin family, and had studied chemistry and medicine. In a chemical laboratory I had first met him. Later on he was anæsthetized in a surgical clinic, where he acquired the unfortunate habit. At present he eats almost nothing, the only desire he has being for ether, the stimulation of which keeps him up. He consumes about a pint a day, and it is thought that he would die if he should dispense with the use of the drug. I was told that there is another individual with the same habit in Berlin, a former Demonstrator of Dentistry.

Drs. Falk and Langgard, assistants of Prof. Liebreich, have recently instituted at the Pharmacological Institute a series of researches to determine whether pennyroyal is a veritable emmenagogue, and how its action is brought about. The drug, as everybody knows, being very frequently used by women without medical advice, the question whether pennyroyal is a harmless remedy is not void of interest. Haller, Govan and Marshall regard the drug as an abortifacient, while Taylor holds an opposite view, and in addition believes the drug to be quite harmless. From two to three grams of pennyroyal, given to rabbits internally or subcutaneously, produce no signs of intoxication save a conspicuous loss of balancing power. The animals stagger from one side to another. A dose of three grams suffices to paralyze the animal. Exceptionally lethal effects have been noted after comparatively small doses. Autopsies reveal invariably parenchymatous degenerations in the principal organs. The liver appears chiefly affected, showing in case of protracted exhibition of the drug, an enormous swelling; the parenchyma is brittle, the peripheral zone of acini presents yellowish foci, often as large as a bean. The heart and kidneys show yellow dots and lines; the urine contains casts and albumin. It is clear then

that pennyroyal, like phosphorus, produces fatty degenerations of the organs. Regarding the action of the drug upon the heart, the experimenters noted a slight increase of blood-pressure, resulting from a slowing of the heart's action, due to a stimulation of the pneumogastric nerve. Hence it must be said that the emmenagogue action of the drug is due solely to its deleterious effects upon the various organs, and that women ought to be cautioned against taking the drug without the physician's order. A number of accidents—collapse, disease of the liver, etc.—from the use of the drug have been observed by Dr. Marshall and others.

A recent order of the police demands all "corn-doctors" to employ perfect antisepsis in their surgical manipulations. The fact that a number of accidents have occurred here of late in the office of a chiropodist has given rise to this desirable ukase. Would it not be indicated to extend the order also to the tonsorial artists?

Recently Dr. Edel, a Berlin dentist, caused the death of his apprentice by the unwarranted administration of bromide of ethyl. The enterprising dentist, not contented with the effects of chloroform given for the extraction of a molar, resorted in addition to bromide of ethyl and promptly killed the boy. Dr. L. Lewin, Docent of Pharmacology at the Berlin University, ascribes the accident exclusively to the combination of the two anæsthetics, which he regards as an inexcusable blunder. Others again claim that the drug was impure, and that the dentist is not to be blamed for the accident. It is certain that with the exclusive use of bromide of ethyl, prepared by Merck, no accidents have been reported even by dentists who, like Dr. Gilles, of Cologne, have administered the anæsthetic in nearly a thousand cases. At the University Dental Clinics bromide of ethyl is never used, as Prof. Busch has had some very unpleasant experience with it. With proper individualization, however—exclusion of nervous and otherwise organically affected persons—bromide of ethyl appears a perfectly safe and very eligible anæsthetic for dental and minor surgery.

—To diminish the danger to life and property from electric wires, the Common Council of Boston, Mass., have passed an ordinance to appoint an inspector of wires, who shall have charge of all wires in the city.

PERISCOPE.

Relative Value of Various Anæsthetics.

In a discussion on anæsthetics before the Medico-Chirurgical Society of Glasgow, Dr. T. Brown Henderson read an interesting paper, which is published in the *Glasgow Medical Journal*, November, 1890, in which he said that next to ether and chloroform nitrous oxide gas appears to be the most useful anæsthetic agent. For short operations, requiring only a brief narcosis, it is admirably adapted, as it is rapid in its operation, and recovery from its effects is equally speedy, and it can be employed anywhere. It is gaining the confidence of surgeons, and, he thinks, it might well be in all operating theatres. St. Bartholomew's Hospital, London, in 1885, used it alone in 378 operations; in 1887, used it alone in 417 operations; in 1889, used it alone in 686 operations.

At the present time nitrous oxide is always given by anæsthetists in London before, and along with, the administration of ether. By this arrangement the narcosis is more speedily induced, and the preliminary taste of ether is avoided. It is a luxury, and is suitable for timid people particularly; besides being speedier, it is found to be safer than narcosis by any other plan.

At St. Bartholomew's Hospital, various anæsthetics used during the past fifteen years, were: Chloroform 17,666 times, with 12 deaths, or 1 in 1,472 cases; ether, 7,493 times, with 1 death; gas and ether, 12,806 cases, with 1 death; methylene, dichloride of ethyline, ethyl bromide, ethyline and gas, and various other anæsthetics, 660 cases.

Ether has been usually given by the open method—poured on a folded towel, or one fashioned into the form of a cone.

After referring to various forms of apparatus for giving ether, Dr. Henderson especially commends Clover's, with which, he says, the effects are usually of the best kind. In Leeds, under Mr. Teale, hardly any case is considered unfit for the giving of ether. The patients take it kindly with perfect confidence, old and young are easily and effectually brought under its influence. The old and bronchitic, by judicious management, have only a small quantity of well-warmed ether, and a very little suffices.

The danger from giving chloroform in small doses nowadays is, Dr. Henderson

thinks, the exception. He never hears of the long time of getting the patient under that was not uncommon many years ago. For many years, to push boldly on with the anæsthetic has been the practice all over the United Kingdom, and he says it is wise to do so in threatened vomiting.

But there are cases where A. C. E. or ether is preferable; such as those who have much fear of the operation, or of the chloroform; if the vital powers are weak from great delicacy, or from exhausting illness; if the cardiac, or the pulmonary, or the nervous system is specially sensitive to chloroform; if there is excess of urea in the blood, or of albumin in the urine, or damaged kidneys. One of the difficulties of chloroform anæsthesia is due to the uncertainty of the quantity necessary to induce narcosis. The most recent book on anæsthetics (Foy) gives the account of a patient who was with difficulty recovered from the narcosis produced by three drops of chloroform placed on a piece of cotton wool put into a hollow tooth; and of another, who was narcotized by five drops of chloroform through a Snow's inhaler. Idiosyncrasies such as these may be more common than is supposed, just as some are rapidly and severely affected by small doses of mercury, opium and other drugs.

Dr. Henderson thinks the safest way is that introduced by Mr. Bloxam, of St. Bartholomew's, London. A few drops are sprinkled on a starched towel or flannel cap, and a drop added every second. It is speedily successful in producing anæsthesia, though in some cases it may be a little longer than when it is poured on more freely. He thinks the administrator keeps a better grip of his patient by the drop system.

Four hours before chloroform administration it is well to allow a light, nourishing, easily digested meal. Before ether, no food should be taken for six hours.

Some years ago the nitrite of amyl dropped on lint and held over the mouth was supposed to prevent and recover from accidents. It was also used, mixed with chloroform, as chloramyl, but after a short administration, it was found to lower the blood-pressure instead of raising it. Inhalations of ammonia, in cases of weak or fatty heart, have been found useful, previous to the use of chloroform. Oil of turpentine 1 part, chloroform 4 parts, was believed to prevent pulmonary paralysis. Hypodermic injection of morphia half an hour before the adminis-

tration of chloroform was supposed to be useful in preventing a fatal issue.

Dr. Bietels, at St. Petersburg, has read a paper on the use of a mixture of chloroform and oxygen. Less chloroform is required than by the usual methods of administration, consequently with less danger, no sickness follows, and the pulse is unchanged. The difficulty is to blend the vapor of the chloroform with the oxygen gas.

Dr. Wood, of Philadelphia, in his address at Berlin, says he found the hypodermic injection of digitalis produced a persistent rise in the arterial pressure, with an increase in the size of the individual pulse rate. In cases of weak heart, where chloroform has to be administered, a dose or two at least of digitalis would greatly lessen the risk of cardiac collapse. The wonder is that this did not occur to us before. Dr. Wood also found the injection of a solution of strychnine into the jugular vein to produce surprising results. It caused a gradual rise of blood-pressure, and always caused an extraordinary and rapid increase in the rate and extent of the respiration. Every one knows the antagonism which exists between chloroform and strychnine. Dr. Henderson would like, however, to have the dose and mode of giving this powerful restorative agent from a scientific authority.

Speaking on the subject of ether administration on the same occasion, Dr. Hartley, of Leeds, assistant to Mr. Teale, suggested the following rules and precautions to be observed in the use of ether were mentioned.

1. As far as possible anæsthetics of all kinds are best given in the early morning when the stomach had been empty for several hours and the body refreshed by sleep; but in any case let no solid food be taken for six hours, nor liquid food for four hours previous to the use of the agent.

2. Avoid giving alcoholic stimulation before administering ether, the effect of this being only to increase the narcotization, and therefore the danger. For a similar reason avoid the use of opium before or very soon after ether.

3. Watch the respiration, the dangers in respect of this function being (1) too deep carbonization of the blood, and (2) mechanical obstruction. The delicate skin of the lobes of the ear is a good index as to whether the patient is becoming too deeply carbonized, and is always open to inspection. Obstruction to respiration may take place from the simple falling back of the tongue;

from the presence of blood, food or foreign bodies in the larynx; from spasm of the glottis; from the accumulation of frothy mucus in the larynx or lungs. If this latter occurs in marked degree, it is often due to the use of too large a percentage of ether vapor in the air breathed.

4. Watch the general character of the circulation, to note the effects of shock, hemorrhage, etc., or a tendency to engorgement of the right side of the heart.

5. Be prepared for any vomiting that might take place.

6. In recharging the inhaler, if this was necessary, beware of the presence or proximity of a naked light, the vapor being very inflammable.

7. Do not use more ether than is necessary to keep up complete anæsthesia.

8. Do not allow the patient's body to be uncovered more than is absolutely necessary for the conduct of the operation. Where a large surface has to be exposed, compensate by extra clothing, hot flannels, hot-water bags, etc., to the covered portions of the body.

As to circumstances which might or might not contra-indicate the use of ether, Dr. Hartley said that he had given ether to people of all ages, from a child of 3 to an old lady of 86, to whom he administered it on three different occasions. No class of cases seems specially prohibitive of ether except patients suffering with acute inflammatory affections of the lung. He had used it in almost all possible operations of surgery, from the extraction of a tooth or the reduction of a dislocation to prolonged abdominal operations of all kinds, operations on the cranial cavity, and in numbers of cases to patients with chest diseases, such as pleuritic effusions, empyema, abscess of lung, sub-diaphragmatic abscess, and in one case to open a suppurating pericardium complicating empyema.

Heart disease does not contra-indicate it. The general effect of ether in the circulation is as a stimulant. In aortic disease this is often beneficial; but if there is a tendency in the venous system to be overloaded and turgid as in mitral disease, or when the right side of the heart is weak and dilated, or from simple over-carbonization of the blood; then the administration of ether calls for greater care.

Chronic drinkers are bad subjects for anæsthetics of any kind, but specially, perhaps, for ether.

Leprosy in China.

The *Indian Medical Gazette*, November, 1890, says editorially that lepers in China appear to be treated with scant courtesy. Driven from their homes, from their relations and friends, and reduced to a state of destitution, there remains to them but one or other of two things, either to choose to enter the leper villages of China, or to leave the country and seek refuge in some of the adjacent English settlements. Hong-Kong, with no law against the importation of lepers, nor against their begging in the streets, becomes a perfect El Dorado to the leprous Chinamen from the mainland. Dr. Cantlie in a recent paper, read before the Hong-Kong Medical Society, brings this subject prominently forward, and in an interesting and instructive thesis advocates the establishment of quarantine retreats for lepers, who have become British subjects, which he thinks could easily be arranged on one of the numerous islands around Hong-Kong.

In Hong-Kong itself there is an order in force that whenever there is a leper reported, the police shall arrest and detain him until the Colonial Surgeon gives an opinion on his condition, when the leper may be sent away to the mainland. The authorities also at the Native Hospital have power to send lepers immediately they are discovered to some one of the leper villages near Canton. It is impossible, however, to prevent the import of lepers, for, unless by skilled inspection, it is impossible to detect a leper in the earliest stages. Importation of lepers in the early stages of the disease and deportation at a later stage when the ulceration has become so unsightly as to cause the authorities to take action, leave a goodly number of lepers free in the island, and it is this remnant to which Dr. Cantlie would draw attention. He believes with many others that leprosy if it had been communicable only in the later stages, would have long since disappeared, for the unsightly leper with ulcers upon his body has always been studiously shunned. In referring to the manner in which the disease spreads, he attaches much importance to the possibility of house infection, a theory commonly held in Demerara, and mentions the case of a General commanding the troops in that colony, who with his wife and children were attacked with leprosy and died.

It is interesting to learn the Chinese opinion concerning leprosy. They have no

doubts on the subject, being strongly convinced of its communicability and incurable nature. For these reasons they hold that the only manner of dealing with leprosy is segregation, and putting these views into practice, every district in China has its leper home, the inmates of which receive an allowance from the Government, and have land to till. Various forms of treatment have been tried at Hong-Kong. The most successful in mitigating the effects of the disease and in causing improvement in the leprosy patches, has been first of all good food and tonics, then the internal administration of chaulmoogra oil in the form of pills, 5 to 15 drops twice a day, and the outward application of the ointment recommended by Dr. Unna consisting of chrysarobin 5 per cent., salicylic acid 2 per cent., ichthyol 5 per cent. When the application was for the face, then pyrogallol was used in place of chrysarobin, and 10 minims of dilute hydrochloric acid was given three times a day to counteract the deleterious effects of pyrogallol on the blood. The amelioration of the symptoms by this method of treatment is sometimes remarkable, and though no cure has been or is likely to be claimed, yet much might be accomplished in rendering the life of the leper more comfortable by a systematic adoption of this and other similar forms of treatment.

Diagnosis of Paget's Disease of the Nipple.

Surgeons and dermatologists have not infrequently hesitated over a case of chronic inflammation of the nipple resembling in its external appearance an eczema, doubting whether the radical operation of excision of the breast should be undertaken; or, in other words, doubting whether they stood in the presence of what was really chronic eczema, or that affection which long ago Paget taught was likely to be followed by a carcinomatous involvement of the gland. Failure in the ordinary applications for eczema, the absence of itching, suspicious induration and long-standing duration have been the clinical data upon which a diagnosis was usually founded.

Darier, in April, 1889, made a communication to the Biological Society of Paris concerning a new form of *psorospermia* found in *Paget's Disease of the Nipple*, describing the parasitic *sporozoa* as occurring

inside the epithelial cells of the affected parts. These observations have been confirmed and the whole subject greatly elaborated by Louis Wickham, in his admirable monograph, *Maladie de la Peau dite Maladie de Paget*. According to these authors, the parasitic bodies are found usually in the lower layers of the epidermis of the diseased tissue, and also in the milk-bearing ducts, and measure from one-third to one-half of the stratum mucosum. So impressed is Wickham with these discoveries, that in the conclusion of his essay he states that Paget's disease is due to the parasites of the class *sporozoa*, and the order *coccidia* or *psorospermia*, and should be relegated to the group *psorospermiosis*. He believes, moreover, that the presence of these bodies, readily detected by microscopic examination of the crusts from the diseased nipple, constitutes an excellent and rapid method of diagnosis.

Further confirmation of these observations comes from Dr. A. B. Macallum (*Canadian Practitioner*, October 16, 1890), who has examined two cases of Paget's disease, and found the bodies in question. In order to avoid disputed points in pathology, Macallum suggests the word *endocyte* as a neutral and readily applicable term to describe these bodies, until their true nature shall be exactly determined. Darier advises that the crust shall be teased out on a slide in Gram's iodine solution and examined with a moderately high-power objective. If fat is present, this may be removed by placing the specimen for several hours in a 10 per cent. solution of ammonia. Macallum modifies this method and secures a permanent preparation by attending to the following directions: The crust, or a portion scraped from the nipple, is teased out in a drop of tincture of iodine on the slide, the cover glass put on, and after a couple of minutes a drop of 50 per cent. glycerine run in. The alcohol and the iodine fix the endocytes, and the iodine gives them a brown-yellow tint, which fades slowly in glycerine. This investigator was thus able to demonstrate these bodies in the free cells, the unteased portions, and in the epithelial cells covering the retracted nipple and filling the ducts. Endocytes present in epitheliomata are distinguishable from these by the absence of cystic membrane, their smaller size and their situation in the central cell of the "nest." Macallum, while unwilling fully to endorse the views of Darier and Wick-

ham, is a valuable disease.

This for future value of tial nature which logical disease. Medical

The 1890, needed represent at the it is in tions a our wi ought reform the St ing ha the Se The v victim prove on the ments public ruine with that a ted—the e holic cense lic tr to re this i is ab a dis the u to di we e of t the cal, ual, Lea that and citi isla

ham, is convinced that the sporozoa furnish a valuable aid in the diagnosis of Paget's disease.

This seems to us a most important field for future work, and not only the diagnostic value of the endocytes, but also their essential nature, are worthy of the careful study which they are at present attracting as etiological factors in various chronic cutaneous disease, and in epitheliomata.—*University Medical Magazine*, December, 1890.

Legislation for Inebriates.

The *Southern Medical Record*, December, 1890, in an editorial, entitled, "A much needed legislation," says: "Now that the representatives of the people are assembled at the capital in the capacity of legislators, it is in order for us to make such suggestions as will more fully acquaint them with our wishes and necessities. Some provision ought to be made for the care-taking and reformation of the unfortunate inebriates of the State. It is a crying shame that nothing has been done in the Empire State of the South to give this greatly needed relief. The world is very uncharitable towards the victims of alcohol. Prohibitory laws have proven a failure; public sentiment is morbid on the subject. Temperance union movements have done much good in educating public opinion, but cannot reach these poor, ruined individuals. What shall be done with them? If inquiry be made, it will show that a large per cent. of the crimes committed—especially the homicides—are due to the effects of whiskey, or some other alcoholic liquor. The sale of intoxicants is licensed and the revenue turned into the public treasury, but there is no provision made to reform the miserable drunkard. Why is this? It is because of the *false opinion* that is abroad that drunkenness is a *sin* but not a *disease*. Such belief obtains only among the uninformed. But we will not stop here to discuss the question. We know whereof we speak when we say that inebriety is one of the most intractable diseases known to the science of medicine. It makes a physical, mental and moral wreck of the individual, unless restored by appropriate treatment. Leaving all other questions aside, we feel that if the State of Georgia would establish and endow an asylum for these unfortunate citizens it will prove a most economic legislation. The cost of keeping and prose-

cuting criminals, and providing for the insane in the asylum, would soon diminish sufficiently to admit of the establishing of suitable hospitals for the inebriate without any increased expense to the State. Humanity cries out, the heart-broken wives cry out, and the worse than fatherless children cry out for something to be done in this behalf. Legislators have promised to make needed reforms. Here is their golden opportunity. We are confident that Governor Northen will stand by them; that the people will give them their hearty endorsement, and when they return to their homes, it will be said, 'Well done, thou good and faithful servants.'"

Treatment of Gonorrhœa.

The following methods of treatment of gonorrhœa are collected from the *Deutsche Medizinische Zeitung*, October 16 and 23, 1890.

Friedheim made a careful investigation of the effects of different injections in the dermatological clinic at Breslau. Of mercurial agents the best is hydrargyri salicylatum 1-270. The common astringents, zinc and lead salts, tannin and subnitrate of bismuth, have no antiseptic properties, and should not be used during the acute stage of the disease. Boric acid, antipyrin, resorcin, salicylate of sodium, often influence the inflammation favorably, but are useless as germicides. He uses in the first stages a weak solution of nitrate of silver, about one to three thousand, four to six times a day, later, some milder agent.

Diday uses an injection of nitrate of silver solution, 1-20, and allows it to remain in the urethra from fifteen seconds to two minutes, according to the amount of pain. Picard believes that nitrate of silver will abort a gonorrhœa, and is harmless if given before pus appears; after that it may do harm.

O'Brien uses injections of sea-water seven or eight times a day in the acute stage.

An injection given by Impamlomenti, consists of a one per cent. solution of creasote in an infusion of camomile, with a little boric acid added.

Pyoktanin has been used by several observers with good results.

The ointment-carrying sound of Unna is recommended by several authors for chronic gonorrhœa. Szadek uses an ointment containing nitrate of silver one per cent., and

balsam of Peru two per cent. Sperling and Bender nitrate of silver one per cent. in lanolin. The sound remains at first three, later fifteen minutes in the urethra. For the second stage Lewis uses an ointment with lanolin as a base, and a non-irritating antiseptic, such as resorcin, four per cent.

Allen calls attention to the use of the endoscope, through which a cotton-stick may be used, as a method of application to the urethral mucous membrane.

Internally, Lane obtained good results in sixty per cent. of his cases in from two to seven days, with salol, in doses of from five to fifteen grains, three times a day. In chronic cases injections also must be employed. Dreyfous uses salol at the same time with the balsamic remedies.

Bird has obtained good results by the internal administration of calomel.

Stern recommends a thorough washing of the body in the neighborhood of the genitals, and the patient's clothes, with a one to two hundred solution of corrosive sublimate, to prevent an auto-inoculation, which he considers a common cause of recurrence of gonorrhœal symptoms, and of so-called chronic gonorrhœa.—*Boston Medical and Surgical Journal*, December 4, 1890.

Pyoktanin.

Dr. Riesmeyer has a paper on pyoktanin in the *St. Louis Courier of Medicine*, November, 1890, in which he gives his opinion of pyoktanin after what seems like a fair experience. He says that pyoktanin has the advantage over all other diffusible germicides in not coagulating albumin. It keeps the granulations at an even level, the granulations looking solid and healthy. Wherever it was applied to granulating surfaces, he never saw spongy or exuberant granulations. He adds that it will probably put a granulating surface into an excellent condition for grafting purposes and plastic operations in general. Carbolic acid and iodoform often cause the granulations to be uneven; while the wounds treated with bichloride of mercury frequently have white necrotic deposits. In the granulating wound treated with pyoktanin he observed a rapid reproduction of epithelium at the edge of the wound. Carbolic acid and bichloride of mercury have the disadvantage of often destroying newly formed epithelium, unless the solutions are too weak to combat suppuration effectively.

Dr. Riesmeyer's observations in the cases so far treated lead him to surmise that the chemical composition of pyoktanin is changed by some substance in the animal tissues, or it may form new combinations which are colorless and do not stop the growth of bacteria, and that the failures in arresting certain forms of suppuration, probably all those where the micro-organisms are located deeply in the tissues, is due to this property. Dropped on the skin or mucous membranes, the stain produced will soon disappear, showing that here also must be an agent present, which produces a change in its composition. In order to see whether albumin had anything to do with this change, he placed a silk thread stained with pyoktanin blue, about $\frac{1}{1000}$, in the white of an egg. In 24 hours the thread had lost its blue color, and no trace of pyoktanin could be seen in the white of egg. Since, however, the white of egg contains other substances besides pure albumin, this experiment may not count for anything.

It will be of importance to know whether, when pyoktanin is injected hypodermically into diseased tissues in as concentrated solution as possible, it will destroy the micro-organisms before it undergoes the change referred to or not. No doubt this point will soon be cleared up by experimental research.

At the present time we are not able to formulate its exact indications in surgery with any degree of accuracy, since the technique of its application is still in its infancy. In certain selected cases it will be of excellent service, but on account of the change it seems to undergo in the tissues, and also on account of its annoying staining properties, Dr. Riesmeyer is inclined to think that the limit of its usefulness in this branch of medicine will be rather narrow in comparison to the hopes that its germicidal properties in the test-tube have inspired.

Immunity from Diphtheria and Tetanus.

Dr. Behring has made known the chemical agent employed by him and Dr. Kitasato in their experimental investigations on diphtheria and tetanus. This is trichloride of iodine, which, injected subcutaneously in animals inoculated with either virus, not only cures them, but renders them immune to subsequent infection. Peroxide of hydrogen in 10 per cent. solution can also confer such immunity in respect of diphtheria.

THE MEDICAL AND SURGICAL REPORTER.

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The Editor will be glad to get medical news, but it is important that brevity and actual interest shall characterize communications intended for publication.

THE KOCH REMEDY FOR TUBERCULOSIS.

It is now about two months since Koch made the announcement of his "remedy" for tuberculosis, and it may be said to have had a fair opportunity to show what it would accomplish. Of course there has not been time to show cures without possibility of recurrence—years might not suffice for this; but there has been plenty of time to show if it could produce improvement of steadily progressive character and furnish ground for hope that eventually some form of tuberculosis would be—in a fair sense of the term—cured through its influence upon the human economy.

The readers of the REPORTER have been given, in a series of carefully prepared special articles, an account of the experiments made with the "lymph" in all parts of the

world, with their results, and the opinion of men of recognized ability in regard to the value of it.

Unfortunately after all it is impossible to say that the lymph can be relied upon for any of the purposes indicated by Koch in his first announcement. It is not a trustworthy means of diagnosis, or a reliable remedy for any form of tuberculosis; while experience has demonstrated that it is dangerous when used either for diagnosis or for treatment.

Professor Virchow, who has been making investigations on the lymph treatment, last week asserted, after twenty-one *post-mortem* examinations of patients who had died after injection, that the Koch method is not what had been hoped or claimed for it, and that there can be no permanent benefit from it to the patient. The tubercle bacilli he says are not killed by the lymph, but are only driven out to take lodgment elsewhere. Thus, according to his theory, tuberculous affections, while they may disappear from one part of the body, break out in other places in as discouraging a form as ever. To this we may add that the phenomena of certain cases, in which it has been asserted that unsuspected tuberculosis of the lungs had been revealed by treatment with the lymph, warrant the belief that the lymph may set up a tuberculous process in persons entirely free from disease.

The REPORTER has, as stated above, contained a very carefully prepared synopsis of the developments in connection with the testing of Koch's "remedy," and the readers of the REPORTER will be promptly informed of any developments in connection with the subject; but we doubt that it will require as much space as has been devoted to it in the last four issues, for it seems hardly worth while to continue the weekly publication of accounts which are so largely mere repetitions of fruitless or injurious experiments on human subjects.

Furthermore, we believe the time has come when such experiments ought to be discontinued, or at least restricted to a very

small sphere. In this country we think they ought to be wholly abandoned. Last week a large number of tuberculous patients in the Philadelphia (Alms House) Hospital refused to submit to be experimented on, and although the physicians with the lymph from Koch's laboratory were chagrined, we cannot believe all of them thought the patients were unwise.

We would suggest that American patients be allowed the benefit of such medical and surgical skill as exist in the profession until the Germans have shown that Koch's "lymph" is really of use. Let the latter do as much experimenting as they may consider wise and right; but let our countrymen go back—those who left them—to the legitimate methods practiced before it was heard of.

It is with regret for the disappointed expectations against which we warned our readers two months ago, that we suggest to them to read again and carefully the Editorial in the *REPORTER* of November 15, 1890, and to reflect on the confirmation of its statements which has been supplied by the history of Koch's "remedy" since that Editorial was published.

CANCER GERM.

For several years bacteriologists have been studying the tissues and secretions of each of the most important diseases in the hope of finding some germ which may possibly be the essential cause of the disease. The interest at present felt in this kind of study is widespread and intense. Doubtless hundreds are at this moment at work upon the pathology of cancer, and are endeavoring to discover its cause. Many of those who fail to find any germs in cancer will think it not worth while to report their investigations; but a number have already announced what they believe to be discoveries of germ life in cancerous growths, although no one has hitherto succeeded in demonstrating the supposed germs to the

satisfaction of others, still less has any one succeeded in tracing a causal connection between any particular micro-organism and cancer. In the *Deutsche Medicinal-Zeitung*, November 20, 1890, Dr. J. E. Alberts gives a very thorough review of the present condition of the cancer question and of its most recent and important literature. Dr. Alberts's own experiments have not been insignificant. He injected dogs with a sterilized emulsion of cancer-juice, prepared aseptically from a carcinoma removed from a living person. The result was entirely negative; the animals lived for months healthy, and at the autopsy nothing was found by macroscopic or microscopic examination, except a trace of the injection wound. Results of transplanting pieces of recently removed carcinoma were just as fruitless; recovery from the operation occurred, and at a subsequent autopsy nearly all of the transplanted piece had been absorbed. Other investigators, particularly Darier, Albarran, Thoma, Wickham and Sjöbring, have described, with more or less precision, a parasitic organism which they have found in cancer. An interesting fact about their descriptions is that all the writers named, except Thoma, who expresses no opinion, speak of the organism as belonging to the protozoa.

The most recent article on the subject of an organism found in cancer is by Dr. William Russell, Lecturer on Pathology in the Edinburgh School of Medicine, and is published in the *British Medical Journal*, December 13, 1890. Dr. Russell writes that he has been occupied for several years in tracing the mode of growth of cancer in different organs. In the course of these studies he met with appearances which he could not fit into modes of cell-growth and nuclear proliferation. He was finally able to differentiate them by a process of double staining with fuchsin and iodine green, the latter replacing the former in everything except the bodies in question. Although these bodies were found in practically every case of

cancer examined, Dr. Russell determined to eliminate all possible sources of error before coming to any conclusion with regard to them. To this end, he ascertained, by check experiments, that they were not produced by accidental impurities in his materials, bottles or stains, nor by a trick of staining; that they were not nuclei of tissue-cells in exaggerated, formative and reproductive activity; and that they were not globes of some form of degeneration. Dr. Russell examined with great thoroughness and apparent fidelity all kinds of tissues and disease products to see if he could discover these "fuchsin bodies," as he calls them provisionally, in anything but cancer. He found them in one case of supposed sarcoma; in two old specimens, one of adenoma of the mamma and one of gumma of dura mater; in one case of syphilis in which, some six or seven weeks after primary infection, there was only a skin eruption but extensive destructive lesion of the fauces and larynx, and even of the bones of the vertebrae behind the fauces; and in a polypus from the ear, which consisted in greater part of fibro-myxomatous structure, but was in its deeper part adenomatous, and it recurred *in loco* after removal; in one case of gelatinous degeneration of the knee-joint, with old sinuses; and in a large, very intractable ulcer of the leg. Tissues were examined from fifty or sixty different cases in all.

On the other hand, forty-five cases of cancer were examined, and in forty-three the fuchsin bodies were found. As a rule, they occur in clusters containing from three to twenty or more. Wherever they occur they almost always show a clear space around them. They can, Dr. Russell says, be found readily with a lens of one hundred diameters if the light is good; their brilliant red or purplish color forms a striking contrast with the green and delicate purple of the tissues. The individuals of which the groups consist are in form perfect spheres, the largest being half the size of a red blood

corpuscle. They appear perfectly homogeneous and structureless as examined by daylight, and the larger clumps are held together by a delicate cementing substance which stains faintly. From a careful study of these fuchsin bodies, Dr. Russell says he has absolutely no doubt that they are organisms belonging to the sprouting fungi, a class of fungi which includes the yeast plant.

Dr. Russell's observations are of very great interest, and seem to have been made with great care. If they are confirmed by other pathologists, and these fungi are found to be the invariable accompaniments of cancer, it will remain for some one to prove their relation to the cause of the disease. This can be done only by inoculating animals with pure cultures, and thus producing cancer, which must contain the same fungi, capable of cultivation. At present bearing in mind Scheuerlen's announcement of a bacillus of cancer, and its subsequent fate, we can only suspend judgment and wait for further light.

THE AMERICAN MEDICAL ASSOCIATION.

In an organization like the American Medical Association the management is naturally controlled by those who attend its meetings regularly and who take the most active interest in its government. Ordinarily this fact enables members who have no desire for office or emolument to enjoy the privileges of an association without bearing the burdens or meeting the cares of office, while these fall to the lot of those who think the pleasures or advantages of office more than compensate for them, and the organization goes on smoothly and prosperously under this arrangement.

But at times it is desirable for every member of an association to consider carefully the policy of the organization to which he belongs and the purposes of those to whom its management has been delegated, and to inquire if they be what is best for the or-

ganization. Such an occasion has just arisen in the American Medical Association, and it has been precipitated by the proposition of certain of the Trustees of the *Journal of the Association* to transfer its place of publication from Chicago to Washington. This proposition is so radical and of such consequence to the prosperity of the *Journal* and the welfare of the Association that it ought to be most carefully considered between this and next May when the Association meets. A right decision of it is of the utmost importance, and to this we invite the thoughtful attention of all the members of the Association.

It might be well to have the subject discussed in the various County and other Societies which send delegates to the Association, and that these should instruct their delegates how to vote on the proposition.

We speak of this because of our conviction that an error committed now would very seriously impair the usefulness of the Association, and our hope that no error may be committed.

BOOK REVIEWS.

[Any book reviewed in these columns may be obtained upon receipt of price, from the office of the REPORTER.]

FAMILIAR FORMS OF NERVOUS DISEASE.
By M. ALLEN STARR, M. D., Ph. D., Professor of Diseases of the Mind and Nervous System, College of Physicians and Surgeons, New York. With illustrations, diagrams and charts. 8vo, pp. xii, 339. New York: William Wood & Company, 1890. Price, \$3.00.

Dr. Starr, in his preface, calls attention to the advances in neurology, which he believes have been of late more rapid than those in any other department of medicine. The result, he says, has been to render diagnosis both easier and more precise, and to open to surgical treatment many diseases formerly considered fatal. The object of the present volume is declared to be to make available to the general practitioner some of the results of later investigations which have a direct and practical bearing upon commoner forms of nervous disease. The facts which Dr. Starr seeks to emphasize are such as enable one to make an accurate diagnosis of the nature and of the location of lesions of the central nervous system. The book is not intended as a treatise on nervous diseases, but as a series of clinical studies of their more familiar types. The first eight chapters are taken up with the localization of cerebral functions; the functions of the cortex and of the motor, visual and cortical areas, and the tracts within

the brain, and with the diagnosis of sub-cortical lesions. Chapters ten, eleven and twelve deal with localization of diseases of the cord, and the following chapters successively with the paralyses of infancy, multiple neuritis, paralysis agitans, chorea, epilepsy, some painful functional affections and their treatment, the treatment of neurasthenia, the ordinary forms of insanity, and a final section on electricity as a therapeutic agent.

In the treatment of epilepsy Dr. Starr uses a combination of the bromides of potash, soda and ammonia, with the addition of a small amount of arsenic and an alkaline potash salt. In cases of nocturnal epilepsy he recommends giving also five or ten minims of the fluid extract of belladonna or $\frac{1}{12}$ of a grain of atropine at bed-time. He says that chloral is sometimes a helpful adjuvant, and so is tincture of simulo. Every patient of Dr. Starr who has an aura is furnished with a small bottle containing cotton saturated with nitrite of amyl. In about one-fourth of the cases this when inhaled aborts the attack.

Of electricity as a therapeutic agent, Dr. Starr says: "My experience coincides with that of Gowers, that the therapeutic effects of electrical applications have been much exaggerated and are really quite limited."

The book shows that the author has obtained all the light possible from experimental physiology and pathology, and that he has checked those results by careful clinical observation; as a consequence, he has produced a thoroughly trustworthy, and a very interesting volume.

L'INTOXICATION CHRONIQUE PAR LA MORPHINE ET SES DIVERSES FORMES.
Chronic Morphine Poisoning, etc. By DR. L. R. RÉGNIER. 8vo, pp. 171. Paris: Office of the *Progrès Médical*, 1890. Price, 3 francs 50 centimes.

Régnier credits Nussbaum, in 1864, with the first observation showing the evil effects of prolonged injections of morphine. Since then important work has been written by Lewenstein, Erlenmeyer, and others. Régnier examines particularly the symptoms evoked by chronic morphine poisoning. He finds that morphine produces modifications of sensibility, anesthesia in hyperesthesia, while the sense of touch is often lessened in delicacy or perverted. Paralyses are rare, but vision is often affected, and the memory, judgment and will are lessened in some patients to such a degree that they fall into true dementia. It would appear that when pain exists and morphine is used to overcome it, the evil results are less serious, and that, when the patient dies, it is from the progress of the disease causing the pain, or from some intercurrent affection. Also, according to Régnier, morphine habitués who are content with moderate doses may live well for long years with their poison without being inconvenienced except by more or less considerable emaciation, by constipation, and by a certain degree of apathy.

Those who become addicted to the habit from the desire for a stimulant appropriate to their fancied need Régnier described as morphinomaniacs and "morphinomania" is the title of the second division of the book. The recent morphinomaniac, Régnier says, is likely to become a proselyte-maker among his friends, who may be led to try the drug out of curiosity, and then, as Landowski says, there is "one morphinomaniac more."

The disease appears to be of more frequent occurrence in men than in women. Its various and progressive stages are well described by Régnier, who

reports sixty-seven case in illustration of the points raised. As to treatment, he says that in inveterate morphinomaniacs one cannot count much upon the efficacy of treatment. When treatment succeeds, the recovery is not ordinarily maintained. Immediate and complete suppression of the use of morphine, he says, is not always possible, and its effect ought to be watched attentively in inveterate cases. Complete and final recovery is rare and can be hoped for only in those whose passion for morphine is of recent date and who do not have any hereditary defect.

A good bibliography is appended to Régnier's book, which is a valuable contribution to the literature of an extremely important subject.

LITERARY NOTES.

—The *Illustrirte Monatschrift der Aertlichen Polytechnik*, which brings each month a most interesting summary of new inventions in medical and surgical appliances and advances in the treatment of deformities, will begin the year 1891 by uniting with the *Fortschritte der Krankenhilfe*, and will hereafter be published by Fischer's publishing house in Berlin. The union is one which promises increased interest and usefulness for both journals.

—Rudyard Kipling contributes the complete novel, "The Light that Failed," to the January number of *Lippincott's Magazine*. Kipling is attracting more attention at present than any other living writer. His force and originality have taken the world by storm. "The Light that Failed" is his first novel and fully justifies the expectations he has raised by his remarkable short stories. It is the story of an artist's life and love, and Kipling shows that he fully understands an artist's outlook upon life, and his hopes, expectations and fears. It is his comprehension of the inner and outer life of men, and his ability to portray both, that is the secret of Kipling's power. In him what is called realism and idealism are blended.

—The first number of the *Balneologische Central-Blatt*, dated October 3, 1890, is at hand. It is a journal in appearance like the *Centralblatt für Chirurgie*, and that *für Medicin*, with which all medical readers of German are familiar. It gives promise of being an interesting and instructive journal on its subjects—balneotherapy, hydrotherapy, massage, gymnastics, etc. It is issued every two weeks by B. Koenig, in Leipzig, and the price is five marks each six months.

SPECIAL ARTICLE.

KOCH'S REMEDY FOR TUBERCULOSIS.

A RESUMÉ OF ITS HISTORY.

[Continued from page 51.]

Dr. Saundby and Messrs. Simon and Barling, in the *Birmingham Medical News*, Dec. 1, 1890, give a very moderate account of their impressions of the value of the lymph, as seen in use at Berlin, where they

had an opportunity of watching the treatment of a number of cases of laryngeal and pulmonary phthisis under the care of Professors Fraentzel and Senator in the Charité Hospital, under Professor Ewald in the Augusta Hospital, and under Dr. A. Levy at his private Clinic. They saw "no case that could be regarded as cured, and in some improvement was doubtful, but others expressed themselves as feeling decidedly better, and there was evidence of this in the cessation of night-sweats, diminished cough and expectoration, and increase of weight." They point out that it is common in cases of phthisis for the patients to lose weight in the early stages of the treatment, but this loss is more than made good later on. With regard to lupus, the authors say that whatever may be the future fate of the patients whom they saw, there could be no doubt that at the time they were remarkably improved, while in some cases no active disease could be detected. In tuberculosis of lymphatic glands they were also able to observe considerable improvement also. With regard to joint disease, they saw instances in which there had evidently been distinct improvement; but none in which a cure had been effected.

The *British Medical Journal*, December 20, quotes a report on the Koch's Treatment in Leprosy, in the *Semaine Médicale*, December 10, of a patient presenting the characteristic signs of leprosy, shown by Dr. Max Joseph at a meeting of the Berlin Medical Society on November 26. He had a well-marked leonine countenance, but there was no ulceration of the face. He was treated with injections of Koch's fluid, and in a short time the chin and the nose became covered with little crusts very close together. Each of these scabs covered a tiny ulcer of about the size of a pin's head. The crusts were exactly like those which are formed on the surface of a lupus patch during the period of reaction. There was no fever or other sign of general reaction. The diagnosis of leprosy was confirmed by microscopic examination of a piece of skin excised from the chin a few days before the injections were begun.

The Berlin correspondent of the *Lancet*, December 20, 1890, gives an account of a patient with tuberculosis of the larynx, treated by Gerhardt, on whom tracheotomy had to be performed to prevent imminent death due to closure of the chink of the glottis.

The *Journal de Médecine*, December 14, 1890, says: Seventeen deaths in Germany, four in Austria and one in Paris—such is the account of Koch's method during the week just ended.

In the *Revue de Laryngologie*, December 15, 1890, Baratoux gives a careful resumé of the operations of the lymph thus far—especially from the standpoint of the laryngologist. As to its diagnostic value he calls attention to the uncertainty of the reaction and the fact that non-tuberculous patients manifest it—persons with leprosy, syphilis and scarlatina, while persons with tuberculosis laryngitis do not always show it. Its curative properties he regards as still less worthy of confidence. The ameliorations noted are in no sense greater than are observed under other methods of treatment, while the lymph seems to give rise to ulceration and the development of acute miliary tuberculosis—in one case he speaks of the inoculation as having advanced the course of the disease six months. The reasons he gives, he says: "compels a reserve more than justified for this method of treatment which after all has given no results, but which facilitates the increase of the malady and even, it is said, the development of latent tubercles, and perhaps even of those which did not exist before."

One of the most important communications in regard to the Koch remedy is that of Dr. Williams, of the Brompton Hospital for Consumptives, in London, in the *British Medical Journal*, December 20, 1890.

It is a curious spectacle, he says, and one by no means flattering to the votaries of science, to see the medical world of Berlin given up wholly to the worship of "Koch's injection" and "reaction process," and all the usual pathological and clinical phenomena of tuberculosis set aside to make way for the one newly-found distinction of reaction or non-reaction after lymph injection. He visited nearly all the clinics containing cases of phthisis, and examined about 100 in whom the disease dated from months to years, and whose lungs showed great diversity in the extent the lesions present. There was no lack of opportunity of studying phthisis in the Berlin hospitals, for the city was fast becoming the receptacle of the phthisis of Germany, and even of some neighboring countries, to the exclusion of other diseases. The Moabit Städtliches Hospital of 700 beds already contained a large proportion of consump-

tives, some of whom are under the personal observation of Professor Koch. The most striking effects of the injection were in laryngeal phthisis, where, with the reaction, swelling of the mucous membrane, and separation of grayish sloughs are visible under the laryngoscope, and, according to Professor Krause, both exfoliation and reabsorption of the swelling take place. Improvement in laryngeal phthisis is common, but complete cure rare.

The great mass of the cases of phthisis were such as may be found in Brompton and in other chest hospitals—partly cases of tuberculization, partly cavity cases, though the conditions of hospital life are in many respects different. The chief symptoms in consumptive cases appeared to be rapid rise of temperature (reaching 103°, 104°, 105° and even 106° F.), quickening of pulse and respiration, the latter being especially marked, occasionally vomiting, increased cough and expectoration, with inspiration of the latter, often aphonia from temporary laryngeal catarrh. In some cases a scarlatinal rash has appeared, and in others (though generally lupus cases) a papular eruption, as Dr. Williams witnessed in two patients. In a few the nervous system appears much affected, as one patient became almost melancholic, and another perfectly unconscious after injection. The whole of these symptoms pass off in a few hours, and the patient returns to his ordinary state till the next injection. This is repeated the next day or in a day or two with increased dose, and continued till all reaction ceases, when the tubercular disease, as far as active tuberculosis is concerned, is held to be arrested.

Nevertheless cases occur which cease to react under strong injections but still present the physical signs of phthisis and whose sputum contains tubercle bacilli. The existence of a reaction after injection is said to prove unmistakably the presence of tuberculosis, and Professor Koch informed Dr. Williams that if a patient, after successive injections, reached the centigram dose without reaction he could be held free from tuberculosis. This may be so. But Dr. Williams examined in one of the clinics a middle-aged man, with a well-marked cavity in the upper lobe of the right lung of some standing, with marked fibrosis of the rest of the lung and with some necrosis of the sternum, the supervention of which had relieved the cough, expectoration and other lung

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symptoms. The sputum contained no tubercle bacilli. This patient gave no reaction after strong injections. As an example of the extent to which the reaction test is pressed Dr. Williams gives the following account.

A young man, with a history of cough and expectoration, was injected with a moderate dose. He had no physical signs or tubercle bacilli in the sputum. No reaction following, the injection was repeated after a few days' interval. Still no reaction. A third and somewhat stronger injection was followed, however, by a decided reaction, the temperature reached 102.2° F., crepitation sounds were audible at one apex and tubercle bacilli detected in the sputum. This case was shown to Dr. Williams as a proof of the value of the injection as a means of diagnosis, but, he says, if the lymph is, as is generally believed, some form of a cultivation of the tubercle bacillus from which the bacilli are removed, there might be other ways of explaining these symptoms, which were, to say the least, very important.

The influence of injections on the tubercle bacilli in the sputum, was, as far as Dr. Williams could gather from the records, not very marked.

Two *post-mortem* examinations on cases dying of phthisis in the Charité Hospital, which had been submitted to the treatment, and had received several injections, showed in one case cavities of considerable size, and in the other a cavity at one apex, pneumonia at the base, with a large eruption of recently-formed tubercle. In neither case was there any sign of cicatrization or fibrosis, nor of more necrosed masses than are usually to be found in similar cases.

The great portion of consumptives under the treatment appear to lose weight rather than gain, presumably on account of the fever reaction; the cough and expectoration seem lessened, but no solid improvement appears to be gained; this, however, only applies to the patients who have been under the treatment two or three weeks, which is the case of the majority.

A few old cases from Professor Fraentzel's clinic, and some which have been in Dr. Levy's, and are now in the Moabit Städtliches Krankenhaus give better results. He speaks of eight cases, which, with a few in Professor Ewald's clinic, were all he could collect as examples of genuine improvement under the Koch treatment, out of about one hundred examined by him. The improve-

ment, though striking, he says, was not more than is met with in the wards of the Brompton and other consumption hospitals under the ordinary conditions of diet and treatment, and he adds that they would not for an instant compare with the results obtained at the high altitude sanatoria, such as Davos, St. Moritz or Colorado, where the restoration to health is often complete, and no physical signs or tubercle bacilli remain.

Dr. Williams thinks that the Koch treatment is worthy of a careful and prolonged trial in proper sanatoria, with the addition of pure air and good food and careful nursing. In conclusion he says: "We owe much to Professor Koch, and it is only due to the great services which he has rendered to medicine that his treatment of phthisis should have a fair, full and impartial trial; and this will be easier and more willingly undertaken when he has imparted to all scientific workers the complete details for preparing the lymph."

NOTES AND COMMENTS.

Treatment of Phthisis.

Dr. Heneage Gibbes has an interesting paper on the question of the unity of phthisis in the *Boston Medical and Surgical Journal*, December 25, 1890. In this he says: I presume no one will doubt that Dr. Koch has entire belief in the unity of phthisis and its bacillary origin. It is, therefore, with some surprise that we read the statement that his lymph does not kill the tubercle bacilli but the tuberculous tissue, that it can influence living tuberculous tissue only, and has no effect on dead tissue, as, for instance, necrotic cheesy masses. This at once removes from its action all cases of pulmonary phthisis, and leaves only tuberculosis to be acted upon.

As I have already pointed out, we have in tubercular tissue a new formation of low vitality, which is shown by its proneness to break down. We have a somewhat similar tissue in the lesions of syphilis; and we know that under the influence of certain drugs, these lesions will soften and caseate. But the tissue found in syphilis is of a much softer, less organized, and more unstable character than that found in tuberculosis. Koch's remedy is said always to cause a feverish reaction accompanied with rigors, when inoculated in a patient, the subject of tubercu-

losis; and this symptom is absent when the case is one of syphilis, cancer, or any other disease. The most marked success so far, seems to have been obtained in cases of lupus, and here the parts affected showed a reaction to the remedy by becoming red and swollen. Whatever may be the future of Koch's cure, one thing seems to be certain, and that is it will not help cases of pulmonary phthisis. This will necessitate our making a careful diagnosis in every case, as fortunately we are able to cure pulmonary phthisis in the early stages by ordinary remedies, and, as Dr. McCall Anderson has shown, even cases of galloping consumption, provided they are not tubercular.

One of Koch's statements is difficult to understand; it is, that his lymph destroys the tubercular tissue in which the tubercle bacilli are situated. Now, given a lung studded with tubercles, all of which are suddenly killed by the action of the curative lymph, it does not seem clear what is to become of the necrosed material. We know that a syphilitic gumma, after it has been destroyed by the action of a drug, will still remain as a foreign body in the part, and set up chronic inflammatory action; in this manner forming a fibrous capsule and isolating itself from the surrounding healthy tissue. The same thing may be done by a tubercle or a nematode worm. The centre is a mass of caseous material having no structure to show what it originally consisted of; it becomes, however, completely isolated by a fibrous capsule formed by the chronic irritation of its presence. The central portion may undergo calcification.

If Koch's lymph kills the tubercles in a diseased lung, what change will take place in them? If they are to be softened and absorbed, the place they occupied will be left vacant and the lungs full of holes, as they were formed at the expense of lung tissue. If, on the other hand, they are simply killed, and dry up like a dead gumma, the lung will in time be filled with numbers of small fibro-cystic masses. We need more light upon this subject; but before all things, it seems to me, we ought to have a clear idea of the actual lesion in the lungs to enable us to appreciate the action of the cure.

It may be of interest to the Society to hear a short account of the work that Dr. Shurly and I have been doing during the last two years on this subject. We came to the conclusion that the lesions in the lungs must be formed by some morbid product

circulating in them; and it seemed to us that the only way, if our views were correct, in which this disease could be checked was by the introduction of some substance which would enter into chemical combination with the morbid product and render it inert. We have never made any attempt to destroy the tubercle bacilli.

It is now more than two years since our first experiments were made, and they have been continued ever since. After trying a number of different substances we found that with iodoform we could entirely check the tubercular process in an inoculated animal. We inoculated monkeys and guinea-pigs with tubercular material; and we found that those treated with iodoform developed nothing further than an abscess at the seat of inoculation, with numerous tubercle bacilli in the contained pus, while the control animal, in each series, left untreated, invariably died of the disease. But we found that the use of iodoform brought on fatty changes in the liver, of a peculiar character, consisting of an infiltration in patches and not like that found in ordinary fatty liver. These patches were not confined to one or more lobules; but at the edge of the patch, in many cases, only a part of a lobule was changed.

While Dr. Shurly was treating the inoculated animals with various drugs, I made a series of experiments on pure cultures of the tubercle bacilli; and I found a number of drugs which would render them inert, as far as their power of producing artificial tuberculosis was concerned. Among these, chloride of gold and sodium exerted a marked influence when used in very small quantities; and Dr. Shurly will tell you what a striking effect it has when used on cases of consumption. As soon as we found that we could prevent the development of the disease in inoculated animals, Dr. Shurly directed all his attention to finding a substance which could be used on human patients without deleterious effects; and I investigated the results of the various inoculations with a view to proving that tuberculosis and pulmonary phthisis reproduced themselves in a different manner in susceptible animals. In both these lines I think we have been successful, although it will require further investigation before we can consider the matter definitely proved.

I should like to call attention to the effect of Dr. Shurly's treatment upon the sputum of the patients. He has kept

regularly supplied with sputum from all cases under treatment; and I have found that those cases treated with substances that produced a marked amelioration of the disease had little or no effect when inoculated in animals. I have a number of guinea-pigs inoculated with sputum from undoubted cases of consumption; and these guinea-pigs are now none the worse for the operation, which was done some months ago.

That a marked change has taken place in these consumptive cases is shown by the total disappearance of bacilli in most of them.

Experiments in Regard to Rabies.

Protopopoff states, in an article in the *Zeitschrift für Heilkunde*, of which an abstract is given in the *Centralblatt für Chirurgie*, October 18, 1890, that, apart from the now disproved theory of phagocytosis, there are two opposing explanations of immunity, the exhaustion theory, and the antidote theory. Protopopoff acknowledges himself to be an adherent of the latter theory, for which he brings new proof in his experiments. Before giving the results of his own experiments, he presents a thorough historical review of the development of the question, which is in the main a review of the works of the French authors, Pasteur and Toussaint, but especially of Chauveau—the first defender of the antidote theory—Roux and Chamberland, Chantemesse and Widal.

Protopopoff's experiments, conducted during the last two years, were undertaken for the purpose of investigating whether or not protection against Pasteur's disease (experimental rabies) depends exclusively upon the action of Pasteur's so-called vaccine material, or virus, and therefore upon purely chemical changes. Pasteur has assumed for immunity against rabies that in protective inoculation, together with the microbes a special substance (vaccine) passes into the body, and that under certain circumstances this opposes the outbreak of the disease.

Protopopoff, took the spinal cords of animals which had died of rabies, and removed from it the fixed virus by sterilization. He found that placing such cords in glycerine bouillon at a temperature of from 65° to 68° Fahr., for from fifteen to twenty days, accomplished this purpose, and that an emulsion prepared with spinal cords treated in this way can be used as a sterilized culture of the virus.

In his confidence in glycerine he is in di-

rect opposition to Gibier, the most conspicuous disciple of Pasteur in this country. But as Protopopoff is an extremely careful and trustworthy investigator, it may be assumed that he is correct in what he says.

A series of further experiments and control experiments by Protopopoff showed that immunity against experimental rabies could be secured by inoculating animals with the non-poisonous emulsion just described. Out of nineteen dogs protected by inoculation with Protopopoff's sterilized virus, fourteen were proof against the usual effects of inoculation with the virus of Pasteur's disease—so-called rabies; while every one of the fourteen animals used for control experiment—that is, inoculation with virus of Pasteur's disease, without previous protective inoculation—died.

Protopopoff further suggests that the outbreak of experimental rabies can be prevented in cases in which infection has occurred before inoculation.

Death in a Dentist's Chair from Cocaine Injections.

The *Journal für Zahnheilkunde*, Sept. 25, 1890, reports a case of death in a dentist's chair from injections of cocaine into the gum, given for the purpose of inducing anaesthesia for the extraction of roots of teeth. The patient was a woman, twenty-nine years old, apparently perfectly healthy but very nervous. The extraction was painless, and nothing abnormal was noted. The operator withdrew from the patient's chair to get some water for the patient to rinse her mouth with, and on his return found her motionless. Physicians were summoned and artificial respiration was practiced, but without success. The autopsy disclosed the fact that three injections had been given, which served for the extraction of three roots. The quantity of cocaine in each injection was two centigrams, or one-third of a grain. The *Journal*, after commenting upon the dangers of cocaine, refers to nine cases of fatal poisoning reported by Dufournier, in the *Archives générales de Médecine*. One of these cases, however, is doubtful, as the patient took a mixture of chloral and cocaine. None of them happened to dentists, and the *Journal* thinks the case it reports the only fatal one occurring in the practice of a dentist. This may be true,

but serious and well-nigh fatal cases undoubtedly have occurred. The *British Medical Journal*, Feb. 9, 1889, p. 311, refers to one in which one grain and a third of cocaine was used.

To show how uncertain the action of cocaine may be, a case may be mentioned in which one-seventh of a grain injected into the eyelid produced very serious poisoning. The case is reported by the *British Medical Journal*, in the article already referred to. It would appear not to be safe to inject a larger quantity than one-half or three-fourths of a grain, especially into very vascular tissues, from which absorption is likely to be rapid and the consequent danger of a maximum effect upon the heart is greatest.

Tiliacin.

The *Druggists' Circular*, December, 1890, says that the isolation from the leaves of the lime tree of a new glucoside, to which the name tiliacin has been given, is announced by Professor Latschinow (*Chem. Zeitschrift*). It is described as splitting up into glucose and tiliaretin, which again decomposes into anisic acid and other products. The leaves of *Cirsium arvense* appear to contain the same glucoside, whilst a glucoside from the leaves of *Phlox paniculata* appears to differ from both tiliacin and hesperidin.

State Medical Society of New York.

The eighty-fifth annual meeting of the Medical Society of the State of New York, will be held February 3-5, in the City Hall at Albany. The following scientific business is announced.

For Tuesday, February 3, the President's Inaugural Address, and papers on Railroad Surgery, by Clinton B. Herrick, Troy; Report of Cases of Injury to the Knee Joint, with Remarks, by Henry Flood, Elmira; Management of Sinuses in Chronic Bone and Joint Diseases, by V. P. Gibney, New York; Necrosis of the Ribs, Complicating Pott's Disease, by Louis A. Weigel, Rochester; Brief Notes on Gastrostomy, with Report of a Successful Case, by Charles A. Powers, New York; The Action of Trypsin, Pancreatin, and Pepsin, upon Sloughs, Coagula and Mucopus, by Robert T. Morris, New York; Operative Procedures in Acute General Suppurative Peritonitis, by W. E.

B. Davis, Birmingham, Ala.; The Progress of Cystoscopy in the last three years, by Willy Meyer, New York; A Plea for Rapid Dilatation, Holt's Operation, in the Treatment of Urethral Stricture, by F. R. Sturgia, New York; A Case of Imperforate Anus of eight weeks standing, Operation and Recovery, by Wm. Hailes, Jr., Albany; Diagnostic Significance of the State of the Pupils, by E. C. Spitzka, New York; Three Diagnostic Symptoms of Melancholia, Second Communication, by Landon Carter Gray, New York; Hysterical Manifestations Due to Alcoholism, by H. C. Coe, New York; Cases of Traumatic Hysteria, by Henry Hun, Albany; Insomnia and its Treatment, by E. N. Brush, Philadelphia; Causes of Asthenopia, by D. B. St. John Roosa, New York; Treatment of Detachment of the Retina, by David Webster, New York; Use of Platinum Instruments in the Extraction of Cataract and in Other Operations upon the Eye, by E. Gruening, New York; Contagion from Roller Towels, by Lucien Howe, Buffalo; One Thousand Cases of Ocular Headache and the different States of Refraction connected therewith, by W. F. Mittendorf, New York; Catarrh and its Cure, by O. B. Douglas, New York; On the Causes of Eczema, by L. Duncan Bulkley, New York; Points in the Pathogenesis of Aural Vertigo, by Oren D. Pomeroy, New York; Certain Hygienic Measures in the Treatment of Catarrhal Affections of the Upper Air Passages, by F. H. Bosworth, New York; Contribution to the Surgical Treatment of Jacksonian Epilepsy, Excision of the Arm Centre, by Edward B. Angell, Rochester.

In the evening there will be a discussion on Appendicitis, the subject being divided as follows: Pathology of Appendicitis, by Herman Mynter, Buffalo, and Arpad G. Gerster, New York; Indications for Early Laparotomy in Appendicitis, by Charles McBurney, New York, and William W. Keen, Philadelphia; Technique of Operative Interference in Appendicitis, by Lewis A. Stimson, New York, and George Ryerson Fowler, Brooklyn; Propriety of and Indications for Resection of the Appendix Vermiformis during the Quiescent Stage of Chronic Relapsing Appendicitis, by Joseph Price, Philadelphia, and Robert F. Weir, New York; Relation of the Physician and the Surgeon in the Care of Cases of Appendicitis, by Albert Vander Veer, Albany.

On Wednesday morning there will be a

discussion on Pelvic Inflammation in Women; its Pathology and its Palliative, Conservative and Radical Treatment, arranged as follows, Introduction, by Andrew F. Currier, New York; Pathology, by A. J. C. Skene, Brooklyn, and W. Gill Wylie, New York; Palliative Treatment, by C. C. Lee, New York; Conservative Treatment, by W. M. Polk, New York; Radical Treatment, by Joseph Price, Philadelphia, and L. S. McMurtry, Louisville, Ky.

These papers will be discussed by Dr. Thomas Addis Emmet, of New York, Dr. Franklin Townsend, of Albany, and others.

After this papers are announced on Treatment of Posterior Displacements by the Utero-Vaginal Ligature, by H. J. Boldt, New York; Minor Gynecological Surgery, by Maurice J. Lewi, Albany; Treatment of Injuries to the Floor of the Vagina, by Horace Tracy Hanks, New York; An Inquiry into our present knowledge of the Progress of Myomatous Tumors after (a) the use of the Electric Current, (b) Removal of Ovaries and Tubes, (c) The Old Method of Treatment by Rest, Intra-uterine Application and Ergot, by James F. W. Ross, Toronto; My Experience with the Surgical Treatment of Retroflexion and Prolapsus Uteri, by Paul F. Munde, New York; Surgical Treatment of Ectopic Gestation, by Charles A. L. Reed, Cincinnati, Ohio; Some of the Results of Defective Sanitary Arrangements in the Puerperal State, by James P. Boyd, Albany; Management of Tedious Labor, by Egbert H. Grandin, New York; Report of Four Cases of Cancer of the Clitoris where Clitoridectomy was performed, by Franklin Townsend, Jr., Albany; Emotional Element; the Puerperal Period, by Adam H. Wright, Toronto.

On Wednesday afternoon, there will be a discussion on Pulmonary Tuberculosis, as follows: History, by H. R. Hopkins, Buffalo; Etiology and Pathology, by Heneage Gibbes, Ann Arbor, Mich.; Diagnosis and Prognosis, by A. L. Loomis, New York; Manifestation in Upper Air Tract and Special Treatment thereof, by John O. Roe, Rochester; Treatment, including Prophylaxis, as related to Climate, by Samuel B. Ward, Albany; Treatment as related to Therapeutics, including Koch's method, by E. L. Shurley, Detroit.

Papers will be read on Koch's Lymph and Tuberculosis, by A. Jacobi, New York; Therapeutical Notes on Acute Respiratory Diseases, by A. Jacobi, New York; Lobar

Pneumonia, with the Production of Connective Tissue in the Air Spaces, by Francis Delafield, New York; The Treatment of Gall Stones, by William Wotkyns Seymour, Troy; Treatment of Itching, by Edward B. Bronson, New York; Croupous Rhinitis, by Frank H. Potter, Buffalo; Correction of Angular Deformities of the Nose by a Subcutaneous Operation, by John O. Roe, Rochester; Case of Pemphigus, by H. R. Hopkins, Buffalo; Treatment of Pigmentary and Vascular Nævi, by George Henry Fox, New York.

On Wednesday evening the Anniversary Address will be delivered by the President, and this will be followed by the Annual Dinner of the Society, at 9.30 o'clock.

On Thursday morning papers will be read on The Relation of Physicians to Boards of Health, by Lewis Balch, Albany; Necessity of an Amendment in the Laws Governing Medical Evidence in Malpractice Suits, by R. J. Wilding, Malone; Present Status of the proposed Law to regulate the Practice of Embalming human dead Bodies, by A. Walter Suiter, Herkimer; Unrestricted Evil of Prostitution, by Andrew F. Currier, New York; Case of Scarlet Fever with Vesicular Eruption, by F. C. Curtis, Albany; Intestinal Obstruction; Report of Cases, by J. H. Glass, Utica; Subject to be announced, by William S. Ely, Rochester; Subject to be announced, by Clarence C. Rice, New York.

Information in regard to the meeting may be obtained of the Secretary, Dr. Frederick C. Curtis, Albany, New York.

American Electro-therapeutic Association.

A convention of American physicians interested in electro-therapeutics has been called to meet at the Academy of Medicine, No. 17 West 43d St., New York, on January 22, 1891, at 11 A. M., for the purpose of organizing an American Electro-therapeutic Association. The call is signed by Drs. G. Betton Massey, Augustin H. Goelet and Horatio R. Bigelow.

NEWS.

—Dr. Myron Knowlton, of Rochester, N. Y., died at the age of 84 years, December 30, 1890.

—Dr. B. S. Warren, aged 65, a promi-

nent physician of Concord, N. H., dropped dead of heart disease, January 1, 1891.

—Dr. Wellington V. Walker, formerly on the staff of the City Hospital of Louisville, Ky., died suddenly at Mexico, Mo., in December.

—Dr. F. W. Dancy, a prominent physician, and President of the State Board of Health of Mississippi, died at his home in Holly Springs, Miss., on November 8, 1890.

—Dr. Frederick T. Outley, a rising young physician of St. Louis, and who spent some years in the service of the city Health Department in the capacity of quarantine physician, died December 28, 1890.

—Dr. Anson L. Hobart, for 32 years a practicing physician in Worcester, Mass., died December 31, 1890, 76 years old. He was a native of Columbia, N. H., and a graduate of Williams College, class of 1836.

—Dr. Elisha Sterling, of Cleveland, died in that city December 29, 1890, after a short illness. He was born at Palisbury, Conn., in 1825, and was brought when a child to Cleveland, when it was a backwoods settlement. He was an ardent student of fish culture, as well as an able surgeon.

—The hospital in Brooklyn conducted by Dr. Mary Dixon-Jones and her son—who were not long ago held for manslaughter—has been criticised again because of alleged false statements to the Brooklyn Board of Estimate, to which it was making application for an appropriation from public funds.

—Dr. McDaniel Purcell died recently in this city in his thirty-second year. He was graduated from the medical department of the University of Pennsylvania about eight years ago. He had been in ill health for several years, but his last illness lasted but two weeks. He was a native of Richmond, Va., and his body was taken there for burial.

—The Imperial authorities of Russia have invited Sir Joseph Lister, Dr. Koch and Professor Pasteur to a conference, with a view to founding and establishing a bacteriological institute at St. Petersburg. Sir Joseph Lister was unable to accept the invitation, and Mr. Watson Cheyne recently left London to take his place as the English representative.

—Passed Assistant Surgeon Kinyoun, of the Marine Hospital service, who was recently sent by the Marine Hospital Bureau to Berlin to enter Koch's laboratory, reported by cable, on January 7, his arrival and

asked for authority to purchase the necessary apparatus. The authority was immediately granted. Dr. Kinyoun will remain in the laboratory three months.

—Eight patients are being treated in the New York Post-Graduate Hospital by Koch's lymph. Three of them are cases of lupus; four are cases of phthisis pulmonaris, and one laryngeal tuberculosis. The inoculations are in charge of Dr. W. C. Bailey, who was for a long time a student in Koch's laboratory, assisted by the Director of the Laboratory, Dr. J. H. Linsley.

—The comparatively rare accident of fracture of a rib by muscular action took place in Philadelphia, January 7, 1891. A woman, fifty-nine years old, had gone into a shoe store to purchase a pair of shoes. After trying them on she stooped over to button them, when she heard something snap, and at the same time experienced a stinging sensation in her side. As the pain continued to grow greater she went to the Episcopal Hospital, where Dr. Boger, upon examination, found that one of her ribs was broken.

—Dr. Gideon B. Perry, one of the oldest practicing physicians in Brooklyn, died suddenly December 30, 1890, at his residence, 627 Bedford avenue. He was born at Hopkinton, R. I., in 1826. He first studied medicine under his father, who was a medical practitioner in the town in question. Later he assisted Dr. Alonzo Clark, of Pittsfield, Mass. He next entered the medical department at the University of the City of New York, graduating therefrom in 1851. In the same year he established himself in practice in Brooklyn, and from that time up to the moment of his death had pursued a professional career of singular activity and success.

—The first of the proposed "Leprosoria" in the Baltic provinces will, it is hoped, be ready for occupation in the spring. A valuable piece of land having been presented for the purpose by the landowners at Nennal, a village seventy versts distant from Dorpat, it is proposed to locate upon this forty or fifty lepers who are still able to work. A small branch establishment, or hospital, for severe cases—especially such as require operative measures—is to be established in the immediate vicinity of Dorpat. This hospital will contain ten or fifteen beds. It will be employed also as an observation station, where patients may be kept before being sent on to Nennal.